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BIRD NOTES.

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THE JOURNAL OF THE FOREIGN BIRD CLUB
FOR THE STUDY OF ALL SPECIES OF
BIRDS IN FREEDOM AND CAPTIVITY.

VOLUME V. SERIES III.

"By mutual confidence and mutual aid
Great deeds are done and great discoveries made."

EDITED BY
WESLEY T. PAGE, F.Z.S., M.B.O.U.,
AUTHOR OF "AVIARIES AND AVIARY LIFE," ETC.

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Secretary's Report.

There is but little for one to say about the troublous years through which we, and the world in general, have been passing. We have cause for mutual gratulation and the reverse.

Satisfaction that we have held our own, and the reverse that we have done no more.

When the roll is revised we think our numbers will be about the same as last year, possibly a few less. We can all assist in the effort to materially increase our membership, and the present is the best period of the year for such an united effort.

Aviculture has not yet fully recovered from the paralysing effects of the war—many aviaries are even yet not re-opened, perhaps never will be, and many others have but few occupants, and it is apparent that the aftermath of war has been as disastrous in its results to aviculture and kindred pursuits as the war period itself, and probably to this cause are to be attributed the difficulties with which we have been contending during the past year and years.

One thing must be commented upon, viz: the slackness of a portion of our membership in the payment of subscriptions, and the lack of courtesy in not replying to applications made for same. The work of the Hon. Sec. has been doubled from this cause, and, if these members persist in their tactics, either the F.B.C. must expel such from the club, or they will find themselves in the position of being unable to secure officers to carry on the work of the Club. *verb sap.*

We do feel that the members have not done all that they might to assist the officers of the Club, or to further the progress of the Club itself, either in the way of copy for the Club Journal, or in the small details that tend towards efficiency and progress, and this after making all due allowance for the adverse conditions under which we have all been labouring.

Re coloured plates: In the coursing of next year we hope to have some proposition concerning these to lay before the members; at the moment we can only say that our income barely covers the cost of Bird Notes, as at present issued, and the very small Working Expenses of the Club.

Shall we, unitedly, seek to overcome the lethargy that has followed the war period, and, with a study of cause and effect, seek to make the failures of the past stepping-stones to future success and efficiency?

The effort required from each individual member is but slight indeed to achieve this—three main points stand in the forefront of our need, viz:

(1) More contributors to Bird Notes.

(2) An increased membership.

(3) Prompt payment of subscriptions, and an attendance to those small details which will materially reduce the Hon. Sec.'s correspondence, and at the same time curtail the Club's postage expenses.

A. E. SNAPE, *Hon. Business Secretary.*
WESLEY T. PAGE, *Hon. Editor.*

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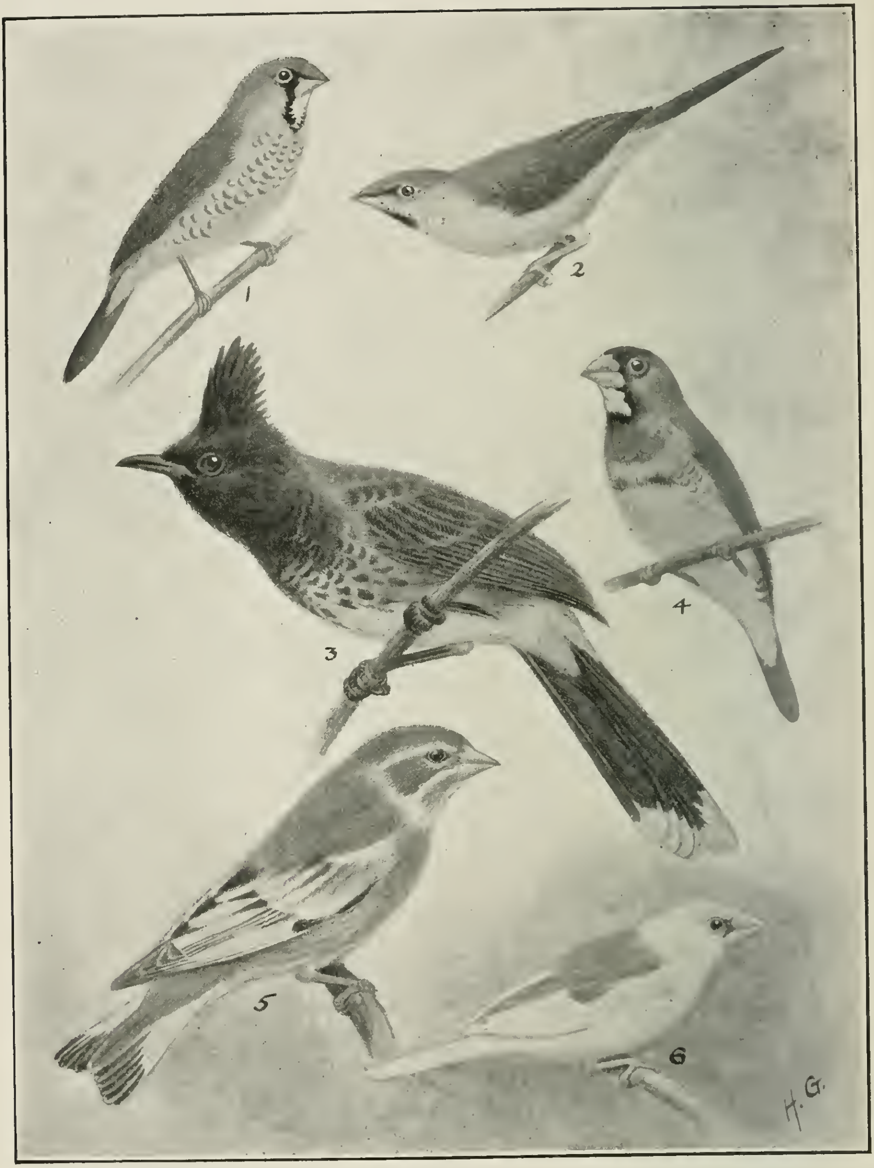

Group of Hybrids.
From life by the late H. Goodchild.

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BIRD NOTES:

— THE —

JOURNAL OF THE FOREIGN BIRD CLUB.

Mannikins.

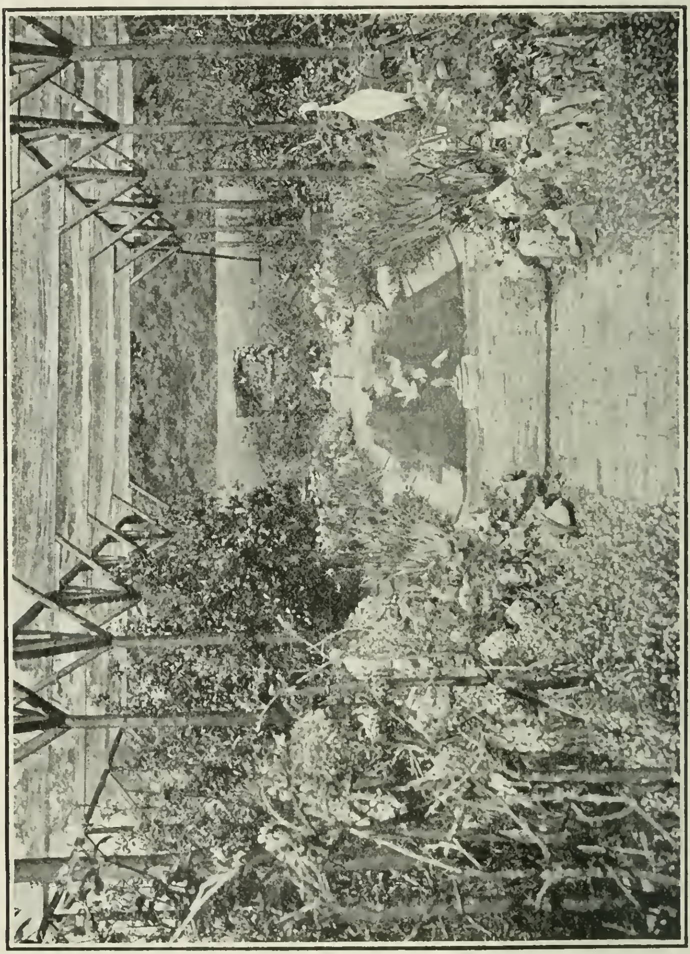
By Wesley T. Page, F.Z.S., M.B.O.U.

To the general run of aviculturists the Mannikin group are the least pleasing of the Family *PLOCEIDÆ*, and I can almost picture a grimace of disgust on the faces of some of my readers when they notice the title of this article. Well, I'm a bit of an outsider, for I find some members of this group both pleasing and interesting, and I have kept most of them.

I am not speaking of cage-life, for when kept in cages most of them are listless and lack interest, except, perhaps, the Bronze Mannikin and Bib Finch.

My experience of them is in the garden (wilderness) aviary—one that allows space for flight, and containing room for several tall evergreen bushes; here, if not as vivacious as the Pekin Robin, they are neither dull nor uninteresting, far from it, for seen against the foliage of some evergreen bush they are noticeable and pleasing birds.

,By wilderness aviary I do not mean merely a dense tangle of wild growth, but a well planned arrangement of open spaces, bushes and patches of tangled grass and herbage. While considering how to fill up this issue I came across a photo (taken last year) of the interior of flight of the Duchess of Wellington's wilderness aviary, which well illustrates this point (see opposite); unfortunately the photo only covers the ornamental central avenue of the aviary, but behind the flower beds, on either side of the aviary, everything is left to grow wild, and here amid the tall grass Giant Whydahs have reared young for several years in succession, and Indigo Buntings also have successfully reared their offspring. The illustration also shows that it is possible to have flowers and birds in the same aviary, for this enclosure has been occupied for several years principally by a collection of *Fringilline* and *Ploceine* finches.



Interior of the Duchess of Wellington's Wilderness Aviary.

Now to get on with the Mannikins! The species I have in mind are the following:

Bronze Mannikin (*Spermestes cucullata*).
Rufous-backed (*S. nigriceps*).
Bib Finch (*S. nana*).
Magpie Mannikin (*Amauresthes fringilloides*).

White-headed Mannikin (*Munia maja*).
Tri-coloured Mannikin (*M. malacca*).
Java Sparrow (*M. oryzivora*).
Spice Finch (*M. punctulata*).
Black-headed Mannikin (*M. atricapilla*).
Chestnut-breasted Finch (*M. castaneithorax*).
Yellow-rumped Finch (*M. flaviprymna*).
Bengalese Finch (*M. domestica*).
Pectoral Finch (*M. pectoralis*).

The above is not a complete list of the group, but it will answer its purpose, and includes some of the species I have kept.

DIET: This can be given for the whole group. It is very simple. The main dietary is canary, white and Indian millet seeds, and millet sprays. When rearing young some species—Bronze, and Magpie Mannikins, etc., are very eager for mealworms and other insects; and they also take a little insectile mixture, and eat greenfood greedily. However, I have had young of all the species reared on seed and greenfood alone, save for such insects as they captured in the aviary.

It is not my purpose to refer to all the species given in my list, but merely to give a few notes on several of the species—the same treatment is applicable to all, nor do they vary greatly in characteristics and general habits.

CHESTNUT-BREASTED FINCH: There are many really pretty and pleasing Mannikins, but this is certainly one of the most handsome. Its garment is a beautiful harmony, of white, buff, fawn, browns and black, not much of the latter; visitors have seen it perched on a twig of laurel or cypress, and some such expression as "What a beautiful bird" a very frequent one, is heard, and I cordially agree.

Their courting movements, and the mannerisms of the mated pair are very quaint and interesting—how much there is to observe in a year's life of any species! Their flight is not an elegant one; it is jerky, as if they made a brief pause every few beats of the wing, and a real good flight round and round the aviary is not frequent, though occasionally indulged in.

Nidification: This in all birds never lacks interest. We note the difference in their demeanour; life seems to have assumed a more serious aspect; and as soon as the brief courting days are passed, they soon settle down to construct a house for their future (coming) family. First a site is chosen, and they make a serious business of this; what a number of likely places are carefully examined and rejected before the ideal spot is found! Then there is no delay; brief recreation and feeding only are allowed to interrupt the building. Their home when finished is not an elegant one; externally it looks more like a ball of hay, ragged and untidy, thrown together anyhow, but examine the interior which is quite symmetrical and well finished, cosily lined with fine hay and usually a few feathers. In due course three to five eggs (my broods have never exceeded three, but on two occasions one or two infertile eggs have been left in the nest after the young have flown) are deposited therein and incubation begins, which duties both male and female share, but the male's share is small indeed compared with that of his wife. How busy and excited they become as soon as soft voices are heard in the nest, and with what care and valour they guard their home. What a happy day it is when they bring out their little family into the aviary-world. How interesting to watch the family party sunning, feeding, and exercising together, ere the parent birds commence the duties of rearing another brood.

I have found them to be double brooded, though often, when the season is cold and abnormally wet, only one brood is reared.

I have lingered too long over this species, but it is rather a favourite of mine. To me it is as beautiful as the somewhat garishly clad Gouldian Finch!

This species has been successfully crossed with other *Munias*.

Yellow-rumped Mannikin.—Quite as beautiful as the preceding species, perhaps more so; it has rather a curious history as to its place in aviculture: introduced to aviculture at one of the large London autumn shows by, I think, Mr. D. Seth-Smith, it created a mild *furore*—it is as handsome as any of the Grassfinches—the following year quite a crowd were on the market; at the present moment few, if any, are alive in this country.

It is a charming aviary bird and stands conspicuously against a background of dark green foliage, and is no more lethargic in its demeanour than a Grassfinch; in fact, not so much so as the popular Gouldian Finch. It did not prove a ready breeder in captivity, and but few aviculturists have succeeded in breeding it.

Its nidification and other general habits are similar to those of the Chestnut-breasted Finch.

Pectoral Finch: Another uncommon and beautiful Australian Mannikin, which we seldom see on the market now-a-days, quite as desirable as either of the above species, and only a few aviculturists have successfully bred it.

It constructs a domed nest in some thick bush or faggot of branches, of rough and untidy exterior, but well lined and finished internally. It, however, has a decided predilection for an artificial nest site under cover, usually a fairly roomy box, which it completely fills from bottom to top with material save for the well finished central nest-chamber, leaving only a small hole for entrance, which is usually below the level of the nest-chamber floor, so that, save for sounds and the birds' demeanour, it is difficult to follow progress from the egg to exit of the young.

The above three species are, perhaps, the most attractive of this group, though this is, of course, a matter of individual opinion, yet among the remaining species there are many with contrasty and handsome plumage, and some of them form fairly conspicuous objects in the aviary.

Rufous-backed Mannikin.—This is another species of irregular appearance on the market, though quite a number were on offer last year, and one aviculturist at any rate, Capt. G. E. Rattigan, bred them quite freely.

Its nidification and general habits are so similar to those we have already given that we need not refer to them further, save to remark that when feeding young they are very keen on live insects, and supplying a few at intervals during the day, certainly enhances the prospect of the young being successfully reared, though young are reared without any live-food supply save what the parent birds capture in the aviary.

They are very desirable and not costly birds for the aviary.

Bronze-wing Mannikins.—This perky, handsome little fellow is, perhaps, the plebeian of the Mannikin family; he certainly is the cheapest and most common, being, in fact, always on the market, though in pre-war times he and the Java Sparrow ran neck and neck for this position with the result of honours about even.

In spite of all this I like the little chap; in a roomy aviary he is always so merry, perky and enquiring, and mostly, if you have a true pair, gives you one brood of young per annum, if no more.

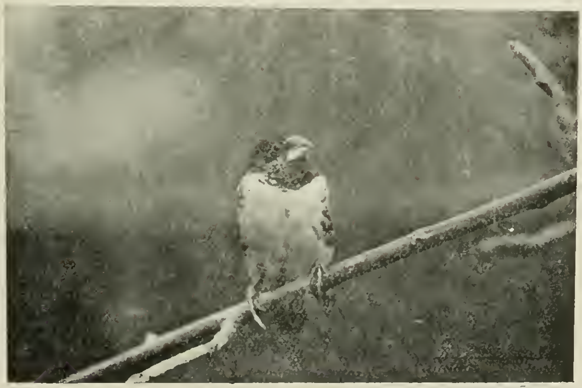
Their nest, too, is a domed one, rough and uncouth looking outside, but well-finished, snug and all that his family can require inside. Moreover, he knows how to look after it too, for he will successfully defend it, or die, even against a cardinal—not often does he fail, for he is so bold, quick and alert, the other fellow gets no chance and soon cries enough! I have dilated again and again on the pleasing spectacle of family parties when the young have left the nest; none are more so than this species—though the Zebra Finch, the plebeian of the Grassfinches, runs them close—true the young hide away in the bushes for the first two or three days, and you can only locate them when they call for food, but after this period you can see them feeding and foraging or disporting together, an object lesson of "the gladness of life," which all creatures exhibit in greater or less degree—none more so than the little Bronze-wing, even though he has no song worth mentioning wherewith to declare it.

Magpie, or Pied Mannikin.—This is perhaps the least pleasing in form of any of the mannikins, being more than double the size of the Bronze-wing, also heavily built and with a very powerful beak; but he certainly is not an ugly bird. His plumage, if not brilliant, is pleasing: an arrangement of sharp contrasts in glistening black and white, with a fawn-coloured patch on each side of the body.

His powerful form and large beak have given him the unenviable notoriety of being a pugnacious bird; most certainly he has not lived up to this reputation in my aviaries, and I have had many pairs since I began birdkeeping. In fact, I have never seen him attempt to use his powerful beak aggressively save when defending his nest, and in this he earned my admiration, not displeasure—with half his body extending from the entrance of his nest he would deal pick-axe-like blows with his powerful beak, at any bird which came near, anyone of which would have been fatal had it reached its mark; for this I certainly did not blame him, especially as aggressors took care to keep him out of reach; in fact it was a case of "good luck to him." And he was always a proud father indeed when he brought forth a troop of babies into the aviary-world.

The Magpie, too, likes plenty of insects when he is rearing a family, and my advice is "let 'im 'ave 'em."

One season I had neither a true pair of Magpie nor Bronze Mannikins in the aviary, simply a cock Bronze and a hen Magpie. The Bronze had been the father of several families of his own kind, but being bereaved he married again, and the size of the only hen of the mannikin family did not daunt him, but after considerable skirmishing, for it amounted to that, the lady consented and accepted him. As a result two broods of very pretty hybrids were produced about intermediate between the parents, both as to size and plumage.



Bronze-wing × Magpie Mannikin Hybrid.

I may here remark that many, nay most, Mannikin hybrids are fertile when paired back to other species, but not *inter-se*.

In point of fact Mannikins are, I consider, readier to mate among each other, failing a mate of their own species, than any other group of birds, and will even mate up with a grass-finch sooner than remain unmated. In support of this statement I refer my readers to back volumes of BIRD NOTES, and reprint a plate of Mannikin hybrids which the late H.

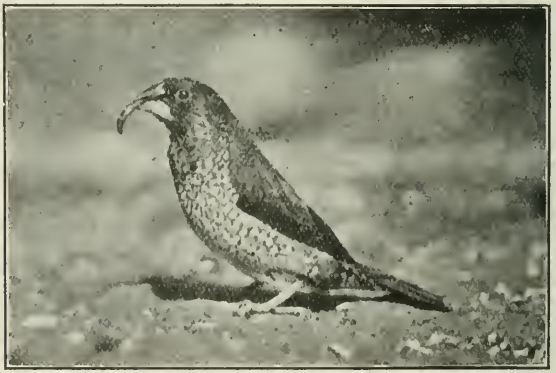
Goodchild drew, some years ago, at L.C.B.A. Horticultural Hall Show, 1914.

KEY TO PLATE.

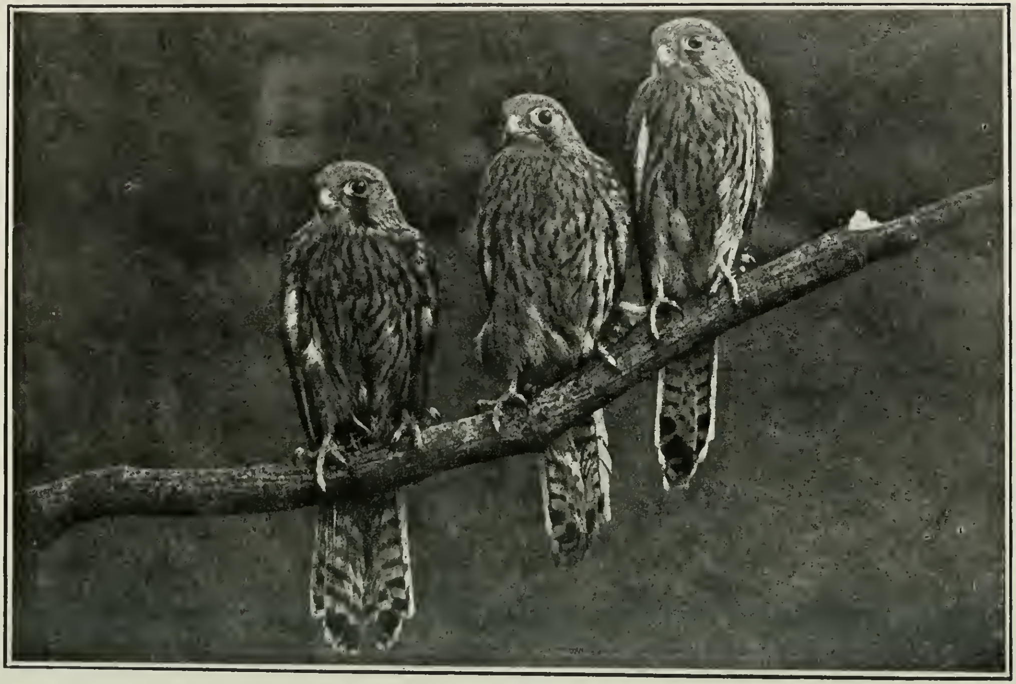
1. Spice × Bib Finch.
2. Silverbill × Bengalese.
3. Red-vented × Red-eared Bulbul.
4 and 6. Magpie Mannikin × Bengalese.
5. Greenfinch × Himalayan Siskin.

Yet, withal, the Tri-coloured Mannikin has not been bred as a species so far as I am aware of, though it has been successfully crossed with other *Munias.*

I must hasten these notes to a completion, dealing with the species yet unnoted collectively, putting the Java Sparrow, Bengalese Finch, and Spice Finch first as a trio of strikingly noticeable aviary-birds; perhaps their order of merit is as I have placed them; certainly there are few finer spectacles than a group of 6-8 Java Sparrows dispersed amid the foliage of a roomy garden-aviary. The White variety of this species is even more noticeable and beautiful. The pretty Bengalese Finch can scarcely hide itself, so noticeable is its colouration; this applies to all three forms—the White, Fawn and White, and Chocolate and White. The Spice Finch is also a striking and beautiful bird, with its warm chestnut-cinnamon back, and beautifully laced white underparts; this species is a shy breeder, yet it has been successfully crossed many times with various other *Munias.*



Spice Finch × Bengalese Hybrid.



A.P.P. *Photo by the late Lieut. F. Dawson-Smith.*

Kestrel Hawks.

There still remain four other species to mention in passing from our incomplete list, viz: the White-headed, Tri-coloured, Black-headed and Bib Finch. The two first named are also noticeable and striking birds; so is the Black-headed when he places himself against a background of light green, but he is lost adid laurel, euonymous, cypress, and the like, unless very closely observed. And now, lastly, what can I say in a few terse words about the charming but insignificant looking little Bib Finch, the mannikin of the Mannikins? Well, he has not much colour, but he is small, only about half the size of the Bronze-wing, in fact about the size of an Avadavat, but a little more stoutly built, he is a free breeder, has plenty of vim and go, yet non-interfering with the other occupants of the aviary. True he has to be looked for, but when found he is a quiet little picture well worth looking at, and, unless it is nesting-time, his modest little wife is never far away, and, when seen together amid the foliage of a fairly large bush, the eye does not readily turn from them—cuddled together, a wee-bit of life amid an immensity of green; a pair in a large aviary of mine some years ago received the cognomen of " The Babes in the Wood "—a not inappropriate title.

Now for my last paragraph: The hybrids mentioned and illustrated herein have not been, in any single instance, I think, deliberately bred, but are the result of the chance mating of odd birds in the aviary. This has been the case with all the hybrids, of any group of birds, bred in my aviaries, as I have never deliberately tried to cross any species. This article has been written against time and physical disability, because other copy has failed to come in.

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Notes on Some Owls and Hawks.

By the late Lt. F. Dawson-Smith.

[The following rough notes came to hand with others, and were evidently intended by our late member, not as an article, but as notes to prepare the article from.—Ed.]

Burrowing Owls (*Speotyto cunicularia*). These quaint and pretty owls inhabit the burrows of marmots, and thus dwell in open plains; they seem to enjoy the glare of the sun, and fly about rapidly in search of food in daytime. Not timid, and allows fairly close approach; if really disturbed, at once retreat into their burrow. When young are only covered in down they often sit at entrance of burrow, but descend quickly when approached.

They feed principally upon insects, and in the West Indies on rats and reptiles.

M. C. L. Bonaparte's records concerning this species are as follows:

> " Marmots, whose excavations are so commodious as to make it " unnecessary that the owl should dig for himself, as he is said to do in " other parts of the world, where no burrowing animals exist. These " villages are very numerous, sometimes covering a few acres, and at others " spreading over the surface of the country for miles together. They are " composed of slightly elevated mounds, having the form of a truncated " cone, about 2ft. in width at the base, and seldom rising so high as 10in. " above the surface of the soil. The entrance is placed either at the top " or on the side, and the whole mound is beaten down externally, especially " at the summit, resembling a much used footpath."
>
> " In all these prairie-dog villages the Burrowing Owl is seen moving " briskly about, or else in small flocks scattered among the mounds, and " at a distance may be mistaken for the marmot itself, when sitting erect. " They manifest but little timidity, and allow themselves to be approached, " but if alarmed, some, or all of them, soar away again and settle down " at a short distance; if further disturbed, this flight is continued until they " are no longer in view, or they descend into their dwellings, whence they " are so difficult to dislodge."
>
> " The burrows into which these owls have been seen to descend, on " the plains of the river Platte, where they are most numerous, were " evidently excavated by the marmot; whence it has been inferred that they " were either common, though unfriendly, residents of the same habitation, " or that this owl was the sole occupant acquired by right of conquest. " The evidence of this was clearly presented by the ruinous condition of " burrows tenanted by the owl, which were frequently caved in, and their " sides channelled by the rains; while the neat and well-preserved mansion " of the marmot showed the active care of a skilful and industrious owner. " We have no evidence that the owl and marmot habitually resort to one " burrow, yet we are assured by Pike and others that a common danger " often drives them into the same excavation, where lizards and rattle-" snakes also enter for concealment and safety."

Inhabits N. America, treeless regions of Western N. America, from Plains to Pacific, also suitable places in many other States. In Dakota and other regions as many as twenty of these owls sometimes nest in the same hole. Well supplied with food, shore-larks, mice, etc. Rarely use material for nests. Outside holes may be found bits of skin of rats, mice, etc. Eggs, glossy white, nearly round, usually 6 to 8 in number.

Length of bird 9.50 inches.

"The Burrowing Owl is supposed to be more than a match for prairie-dog and rattle-snakes as well."

It eats young marmots and even old ones. It enlarges burrows, beginning at far end of tunnel to remove the earth and send it backwards with vigorous kicks until all is clear. Dry horse or cow dung is carried to burrow, broken in pieces and scattered over nesting chamber, which may be eight or ten feet from entrance. Owl's eggs smothered with fleas which positively speckle the eggs. Birds remain paired for life.

Nursery duties usually ended by June, and one can see funny top-heavy little owls at burrow entrance. Bowing toward you as you approach, your entertainer is not shy—a little gnome-like creature nearly twists its head off its neck in its attempts to follow your movements with its immovable eyes. Approach too near and it flies off chattering, "zip, zip" when alarmed. They also sharply and rapidly click their bills when excited or enraged. After sundown one sees these busy hunters on the chase, now poised in mid-air like a sparrow-hawk, above their prey, now swooping downwards on swift noiseless wings to grasp it in their talons and bear it away. A few well-directed blows with beak that breaks the vertebrae of neck quieten it for ever. They account for surprisingly large prey. Like brains best, often leave other parts untouched. A useful bird.

INDIAN LITTLE OWL *(Athene brama)*: A clownish and amusing bird. Very noisy and makes a nocturnal pandemonium.

URAL OWL *(Strix uralensis)*: This fine bird has a length of 23 inches. It is a native of Arctic regions; common in Lapland and Ural Mountains. Also parts of Austria and North of Sweden. Rarely seen in other parts of the world.

Preys chiefly on birds and small animals, which towards the close of day it may be seen looking out for, among the forests of the desolate regions in which it lives.

Nests in holes in trees, lays 4 to 5 eggs.

AMERICAN SPARROW HAWK (*Falco sparvensis*): pretty species may be seen hovering almost motionless in mid-air, then suddenly swooping to ground. Seeks its prey over fields and meadows.

Builds no nest; deposits its eggs in natural cavities of high trees, often in deserted holes of woodpeckers, and in crevices in rocks and buildings, sometimes in a deserted magpie's nest.

Cavities usually contain no lining; eggs 4 to 5 in number laid in April or early part of May.

Male: Top of head slaty-blue; several black patches on side of head and nape; back rufous, with black spots; tail rufous white tipped with a broad black band below it; underparts white or buff, sometimes spotted with black. Length 10 to 11 inches.

Common in N. America in general.

Perched on a high dead limb or other point of vantage, it eagerly scans the field below for grasshoppers, mice, sparrows and the like. When prey is sighted it launches itself into the air, hovers over its victim, then drops like a stone, seizes it in its talons and flies back to its perch to feast. It is amusing to watch it handle a grasshopper, very much as a squirrel might eat a nut if he had only two legs. On becoming dissatisfied with its hunting grounds, it will fly off over the fields gracefully, swiftly, now pausing on quivering wings to reconnoitre, now on again, suddenly arresting flight to pounce on its tiny prey. Its flight is not protracted nor soaring; never so hurried, so swift, or so fierce as the small hawks; it is none the less active, and its charming hovering posture gives its flight a special grace. Kill-ee, kill-ee, kill-ee it calls as it flies above the grass. Lets feathered prey alone until grasshoppers and field mice can't be got.

Remains paired for life.

RED-SHOULDERED BUZZARD (*Buteo borealis*): This fine species, 18 to 20 inches in length, is also known as the "Chicken-hawk," and is very common in N. America.

It preys upon mice, insects, moles, and small birds.

Sailing in wide circles overhead, the Red-shouldered is a

Photo by W. Shore Baily.

Algerian Chaffinch on Nest.

picture of repose in motion. Rising, falling in long undulations, floating, balancing far above the earth, now stationary on motionless wings, and again with a superb swoop, a very meteor for speed. Serenely pursues its way, ignoring the indignities of the crow that may not reach the dizzy heights to which it soars. While nesting, April to August, helpless fledglings give them little opportunity for these leisurely sails, but they are birds of freedom indeed towards the end of August, and in September " Kee you, kee you " they scream as they sail—a cry the Blue Jay has learned to imitate to perfection. Easy to approach when gorged. Leaves food when approached instead of carrying it off like the other hawks. If cornered or wounded will fight to the last on the back, defending themselves with both bills and talons. Spends most of its life perching, usually on some dead limb, where it watches for mice and moles creeping through the meadow, etc. It is not shy, and when perched can be easily approached and watched as it descends like a thunderbolt to strike its prey.

Eggs, 2 to 4 in number, white with rough granulated shells, often irregularly marked with shades of cinnamon,

They remain paired for life. Their downy young are helpless, and do not leave the nest until fully able to fly.

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The Nesting of the Algerian Chaffinch

Fringilla spodiogenes.

By W. Shore Baily.

Rather more than a year ago I bought a pair of Algerian Chaffinches from a London dealer. The cock was a nice bird, but the hen was in rough condition and minus one eye, so while turning the cock into an outdoor aviary I decided to keep the hen indors until the warm weather set in. The cock started singing early in February, and both its song and call-note were noticeably different from those of the English birds outside the aviary, who very freely replied to its vocal efforts.

The birds themselves differ very little in plumage from

F. coelebs, but are rather larger and have a good deal more white on the wings. About the end of March I turned the hen, which had greatly improved in condition, into the aviary with the cock, but shortly after this I picked up the latter, dead. As I was unable to get another male, for these birds seem to be very rarely imported, I trapped one of our own birds and introduced it to the hen. For a time they took very little notice of each other, but in May I noticed the cock chasing the hen, and singing to her. Shortly afterwards the hen was seen carrying feathers and other nesting materials, and for some weeks she spent a great deal of time in trying to construct a nest. Her efforts were quite unsuccessful, as before she could get the foundation properly constructed the whole thing would collapse. This happened time and again, and it was evident that the material available for her was unsuitable. At last I supplied her with some cotton wool, and with this she succeeded in building quite a neat nest, rather larger than that of the common Chaffinch, and, of course, quite different in appearance. In this she laid three eggs, somewhat similar in colour and markings to those of our bird. She sat very steadily, but the eggs proved infertile. I removed them in the hope that she would have a second nest, but she made no attempt to do so, so I must hope for better luck next year.

Writing of the Algerian Chaffinch in *Birds of Tunisia*, Mr. Whittaker says:—

> "This bird never appears to have strayed across the Straits of Gibraltar, or to have been found in Spain, and the species has every right to be considered as peculiar to North-west Africa. In its habits generally *F. spodiogenes* resembles our European Chaffinch, and I cannot say that I have noticed much difference in its song, although its notes may, perhaps, be a little harsher, and not so clear as those of *F. coelebs*. To be able to judge properly, however, one should hear individuals of the two species singing together, or one almost immediately after the other. In any case, however, the bright call notes of the Algerian Chaffinch, and its cheery short song, fall as pleasantly on the ear in the North African woodlands as does the familiar note of its European congener at home, and they form no slight contribution to the wealth of bird music to be heard in some of those districts during the spring and early summer months."
>
> "This Chaffinch thrives well in confinement, and examples of it may often be seen in cages in Tunis and other towns of the Regency. Seeds of various kinds seem to be the principle food of the species, but insects also

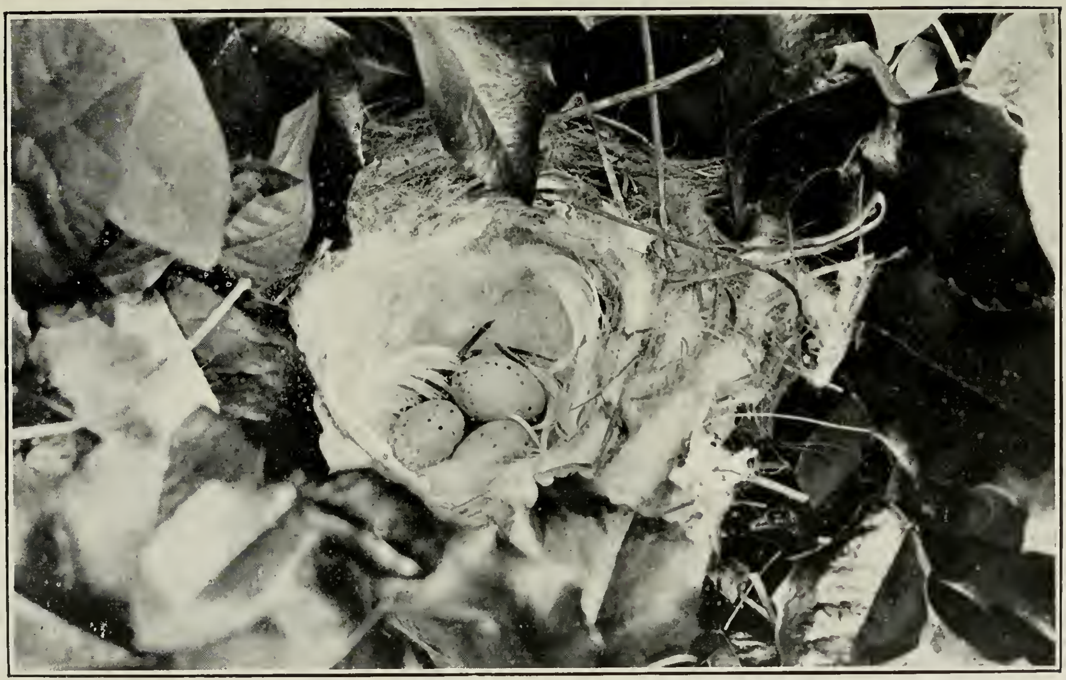

Photo by W. Shore Baily.

Nest and Eggs of Algerian Chaffinch.

largely enter into its diet. The nesting season of *F. spodiogenes* in Southern and Central Tunisia commences soon after the middle of March, and is continued well into May. In the north of the Regency it is somewhat later. In the olive-groves of the Gafsa oasis I have found many nests during the first fortnight of April, some with eggs, others with fledglings in them. The nests are placed as a rule in the fork of a bough at a height of eight to sixteen feet from the ground, and resemble those of our European Chaffinch, in being cup-shaped and neatly and compactly built. but they are somewhat larger, and composed externally of dry bents and grasses of a greyish colour, which harmonises better with the grey boughs and foliage of the olive-tree. Interwoven into the nest are pieces of wool and cotton threads, and occasionally also a bit of blue cotton stuff, probably picked up near some Arab tent; the interior is neatly lined with hair and feathers. The eggs, usually rather larger than those of the common Chaffinch, and generally four in number, are of a dull pale bluish or greenish colour, sparsely clouded and spotted with vinous and russett markings. They vary a good deal in size and shape, but their average measurements are 21.50 x 15.50 mm."

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Editorial.

THE PROSPECT: This is all we could desire, and the future outlook is rosy, if we are only prepared to take the trouble to grasp and use our opportunities.

We regret we cannot congratulate our members upon this issue—again too much has been left for the Editor's pen to fill—and the result is and must remain so, that lack of variety, which, we think, all desire to see.

Our members do not seem to have yet grasped the fact that, during the war, we lost most of our regular and valued contributors, or are somewhat indifferent or slack about the matter. Your Editor cannot, and it is unreasonable to expect it, write several articles month by month, and if members will not take the trouble to write articles on the doings of birds in their own aviaries, rare arrivals, which they see or hear of, and other topics of aviculture—we still have a good membership, but comparatively few wrote anything for the Journal last year, and there should be ample unrecorded matter to carry us over till the coming season should supply us with fresh facts and episodes—one thing we must make quite clear: your Editor cannot, and *will not*, be always whining for copy, neither can he be always writing so bulkily as in the past, and *if the members will not supply copy*, the failure is theirs and not your Editor's. We have placed the issue clearly before you—*the future is yours to make or mar.*

If members do not supply more copy than in the past there can only be one result, viz: issues of Bird Notes small in bulk and equally so in variety.

While upon this topic we will refer once more to the Correspondence section—this is not largely used, yet interest and profit should result if the opposite were the result. For instance, how important are insectile mixtures to the successful keeping of soft-bills and the successful rearing of their young-- What interest and profit there would result from a discussion upon this topic—we are not a society of traders and have no business secrets to conserve—it only needs one or two members to give their methods and results, and others to follow on; to start what would be some of most, if not the most, practical and important avicultural copy Bird Notes has ever published. And there are numerous other similar topics that might be so dealt with—we have only to remember that we have not, neither are we called upon, to prove that *my mixture* is the only right or successful one, but to glean valuable knowledge and data, which should not only be mutual gain, but prove conducive to the happiness and comfort of the birds we confine; to put all fear of acrimonius discussion to flight (*if such we indulged in the Editor's blue pencil would most certainly erase it*), and a pleasing, interesting and practical feature be commenced in our Journal.

We do not desire to repeat what we have said in our Retrospect--we note that there is a desire for the resumption of coloured plates; WE WILL HAVE THEM AS SOON AS WE ARE IN A POSITION TO PAY FOR THEM.

Again there is the need for new members to make good war losses, etc.; this is a matter in which all can help. Will they?

As we opened so we close—the future is ours to *make or mar.* If we grasp our opportunities, and each individual member does his, or her, part according to their ability, then 1922 will be the most successful in our history.

FOREIGN BIRD EXHIBITING: The war practically put a stop to the exhibition of foreign birds, at any rate so far as London was concerned, and then the prohibition of their import temporarily caused the supply to run low, and even now, more than three years after the signing of the armistice, foreign bird exhibiting has not as yet got into its stride, though we opine that next autumn things will be pretty near normal again, and, we hope, F.B.C. will fully resume its normal place therein.

We have been unable to get up to recent London Shows and report them in our Journal, including the recent Olympia Show, perhaps some member who attended will send us notes regarding the latter.

We have a few notes sent us and a catalogue of the *Scottish National Show* held, we think, on January 1st. There were six classes in the Foreign Section, viz:

Common Waxbills, Finches, Mannikins, etc.
Budgerigars and Lovebirds.
A.D.V. Seed Eaters not larger than Cardinals.
Cockatoos, Parrots or Parrakeets.
A.S. Tanagers, Sugarbirds, etc.
A.S. not comprised in the above.

These drew together some 47 entries, comprising some beautiful and interesting species, but mostly those well known to aviculture if not to the show bench.

The Class for Common Waxbills, etc. does not call for comment. It only drew six entrants.

1, Gallacher, St. Helena Waxbill; 2, 3, Brotherstone, Diamond Sparrow and St. Helenas; 4, 5, H. L. F. Pullar, Mannikins and Napoleon Weaver.

Budgerigars and Weavers (11):

1, V. H. C. & C., H. L. F. Pullar, Blue Budgerigars (F.B.C. medal), Olive and Apple-green Budgerigars; 2, 4, 5, Miss Peddie Waddell, Green Budgerigars, Peach-faced Lovebirds, and Yellow Budgerigars; 3, Brotherstone, Peach-faced Lovebirds.

A.O.V. Seed Eaters (14):

1, 3, 4, H. L. F. Pullar, Virginian Cardinal, Green Cardinal, and Pin-tail Parrot Finches; 2, 5, Laurie, Violet-eared Waxbills, and Paradise Whydah.

Cockatoos, Parrots, etc. (10):

1, Adams, Rosella Parrakeet; 2, 4, 5, H. L. F. Pullar, Prince Lucian Conures, Black-headed, and White-eared Conures; 3, Erskine, Crimson-wing Parrakeet.

Tanagers, etc. (3):

1, Montague, Yellow-winged Sugarbird; 2, H. L. F. Pullar, Superb Tanager; 3, Arnott, Yellow-vented Bulbul.

A.O.V. (3):

1, 3, Arnott, Wandering Tree-pie, and Black-headed Sibia; 2, H. L. F. Pullar, Great Mexican Grosbeak.

We are informed that the exhibits were all put down in good condition, well staged, and formed a great attraction to the visiting public.

It will be seen that members of F.B.C. were well to the fore, both as to entries and successes.

Our members should inform their various club secretaries that Mr. S. Williams, Oakleigh, 110 Riverway, Palmer's Green, London, N., 13, is now the Exhibitional Secretary for F.B.C.

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Correspondence.

PEREGRINE FALCON EPISODES.

Sir,—The following incident, though not strictly avicultural, may be of sufficient interest to serve as "copy!"

A few months ago I noticed my pair of Indian Ring-necked Parrakeets, apparently startled by something, flying swift and low across the fields in front of the house, and a moment later was surprised to see the wedge-shaped form of a peregrine falcon—a rare bird in this flat and civilized region—passing over at a considerable height. Although one cannot help feeling a certain sentimental affection for this fine bird of prey, I must admit that her appearance did not fill me with unmixed joy, as I reflected on the probable fate of my Crimson-wing and other slower flying Parrakeets, should she happen to meet with them in the open, when hungry. However, time passed by and I saw no more of her, so I concluded that she was on migration However, this afternoon (February 3rd) I again made her acquaintance. My wife called my attention to a bird chasing a peewit, and putting my glasses on it, I found it was my old friend. The peewit she was after eluded her, but a moment later she dropped, head downwards, on to something on the ground, which proved to be another peewit, which, with singular lack of caution, had continued feeding on the plough. There was a brief struggle, terminating, as I thought, in the death of the unhappy plover, which its captor started to pluck. Being anxious to see where the falcon would carry her quarry, I entered the field, but the moment my head appeared above the hedge, two-hundred yards away, the peregrine dropped the peewit, who, far from being dead, made off with all possible despatch, no doubt a wiser and more cautious bird.

The falcon flew straight away over the town, and once more I heartily wished I was seeing the last of her—but was I? Time will show!

Havant: February 3, 1922. (The Marquis of) TAVISTOCK.

BREEDING RESULTS.

Sir,—I have some Zebra Finches (*Taeniopygia castanotis*) bred in my aviary. The second brood were hatched on October 7th, one of which promises to be very dark, as there are many black feathers showing.

I have also reared two Avadavats (*Sporaeginthus amandava*), and I wonder whether these have often been bred so far north as Edinburgh?

Cordon Bleus and Cuban Finches nested, but did not hatch out any young.

Edinburgh: December 19, 1921. J. CURRIE.

SEEING OTHER MEMBERS' AVIARIES AND BIRDS.

Sir,—I always feel, and I expect there are many others that have similar thoughts, that members of F.B.C. ought to be able to get to know other members, and so get bird-talks occasionally. Would it be possible to put in any kind of informal notice in Bird Notes to the effect that I, for one, would be delighted to have a visit from any member who might be in this district, and would care to call.

This is only a mere suggestion.

(Mrs.) MARGARET READ.

Church Croft, Weston Park, Thames Ditton: January 16, 1922.

A FEW NOTES FROM OUR PRESIDENT.

Sir,—I left home for England on December 21st, and it may interest you to hear that a hen canary was sitting on eggs, in a nest she had made in an ivy bush out of doors. Zebra Finches are also nesting in a thick bush. (Ballywater Park, Co. Down).

I have not bought any birds since the war broke out, so my variety is now quite small; but, on my return, I am taking back with me a fair number of waxbills, mannikins, weavers, whydahs, and other Ploceine finches, also some buntings, larks, waxwings and troupials.

You will be pleased to hear that the Egrets and Pond Herons are doing well; the former fly beautifully, but, I am afraid they will have to be pinioned and wander at large out of doors, as, though they are in the far division of the aviary, the smell of fish is most objectionable, and spoils the pleasure of going down there.

London: December 30, 1921. (Lady) N. L. F. DUNLEATH.

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Post Mortem Reports.

Vide rules on page *ii.* of cover.

CORDON BLEU: A. H. Barnes.—Pneumonia.

VIOLET-EARED WAXBILL: Mrs. Calvocoressi.—Pneumonia.

PARADISE WHYDAH: R. E. Simpson.—Pneumonia.

PENNANT PARRAKEET: H. Whitley.—Enteritis.

AUSTRALIAN CRESTED DOVE: H. Whitley.—Nephritis (Inflammation of kidneys).

CIRL BUNTING: Capt. Reeve.—Congestion of lungs and enteritis.

BUDGERIGAR: Miss Foster.—Abscess of lung.

NATH. S. LUCAS, M.B., F.Z.S,
Hon. Pathologist.

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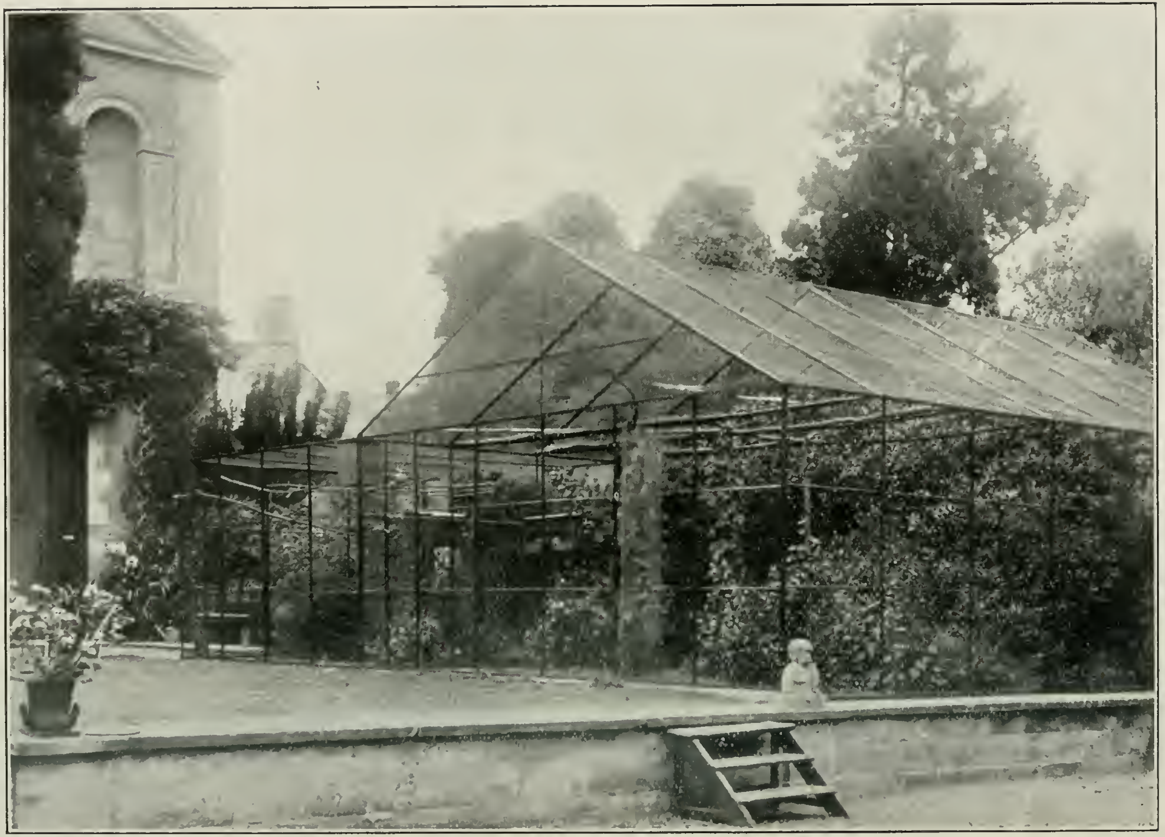

Capt. Reeve's Terrace Aviaries.

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BIRD NOTES:

— THE —

JOURNAL OF THE FOREIGN BIRD CLUB.

My Aviaries and Birds.

By Capt. J. S. Reeve, F.Z.S., M.B.O.U.

Your Editorial admonition in January issue of B.N., combined with a free evening, has compelled me to attempt an article.

My aviaries, except for an alteration to which I will refer later, are as they were when last described in this Journal; therefore I am not giving any details of these.

In pre-war days I went in principally for foreign finches, weavers and waxbills. I was obliged to get rid of the greater part of these while away soldiering, and the only survivor was a cock Red-headed Weaver (*Quelea erythrops*), which came from Hamlyn in 1906, and survived his return here by over a year, dying in November 1920, being then fully fifteen years old; he was out of doors all the year round practically the whole period.

Since the war I have gone in for a few Softbills, Parrakeets, and the rarer British species. Of those not still in my aviaries I may mention a pair of Cirl Buntings (*Emberiza cirlus*), of whose nesting I contributed a few notes last year; a Black-necked Grackle (which I ultimately sold to the New York Zoo) was an amusing customer who did not know what fear was, but he was never in the best of health; a pair of Crossbills, which would soon have destroyed a large holly bush in my large aviary, not to mention rambler roses, all of the which they barked and frayed the twigs; a pair of Woodlarks were very engaging, and the song of the male was very sweet and distinctive, but they did not long survive!

The present occupants of my aviaries are as follows:

House Aviary: This was refitted a year ago, and I put in a radiator and hot-water service, added glass doors so as to enclose birds into the inner portion during the winter months: the temperature this winter has varied between 50 and 60 degrees F. I also wired in a small piece as winter quarters for the smaller species.

In the main portion are:—

1 pair Triangular Spotted Pigeons (*Columba phaeonota*).
Glossy Starling (*Lamprotornis chalybeus*).
♂ Shama (*Cittocincla macrura*).
♂ Archbishop Tanager (*Tanagra ornata*).
1 pair Red rumped Parrakeets (*Psephotus haematonotus*).
1 pair Blue-winged ,, (*Psittacula passerina*).
1 pair Prince Lucian Conures (*Pyrrhura luciani*).
1 pair Blossom-headed Parrakeets (*Palaeornis cyanocephala*).
1 pair Spot-billed Toucanettes (*Selenidera maculirostris*).

The Triangular Spotted Pigeons have done exceptionally well with me, proving quite prolific. I bought a pair from the London Zoo in March 1920, and the following is their record:

2 young left the nest May 30, 1920.
2 young left the nest July 17/22, 1920.
2 young left the nest September 18/20, 1920.
2 young left the nest April 28/29, 1921.
1 young left the nest June 23, 1921.
2 eggs put under Stock Doves July 2, 1921, and *vice versa*.
2 young Stock Doves left the nest August 4/7, 1921.
2 young Tri.-spotteds left the nest October 4/12, 1921.
2 young Tri.-spotteds left the nest December 21/29, 1921.
2 eggs in nest February, 1922, which I think are addled.

I cannot say I have had much success with the Tanagers for the bulk of them did not survive long with me, in fact never properly recovering from the hardships of importation though looking well when I got them from the dealer. The cock Archbishop Tanager (twice a widower) is a beauty, who, after a winter indoors, moulted out into glorious plumage in the outdoor aviary last autumn; he is now in full song; Shama will not let him feed if he can help it, but his Lordship, the Archbishop, seizes a piece of apple, banana or grape, flies off to a branch with it and devours it in comfort; he is ever keen to get out of doors; as also are the parrakeets. The Shama is a favourite, I have had him three years and he is a fine songster.

My pair of Red-rump Parrakeets have done well, have fully reared quite a few young birds, and can now well be called a breeding pair. The other species have yet to show what they can do in the way of reproducing their kind. With the exception of the Blossom-heads (these are young birds and not yet fully developed) all the parrakeets are in fine condition and I am hoping for results.

The Spot-billed Toucanettes are really delightful birds; they catch a great deal better than I can throw, indeed they never miss a reasonable chance! If handing them a grape with a glove or fingerstall on, or anything unusual they will examine the latter before taking the grape; both are in perfect plumage now, though the cock is never so lively as his spouse, and appears to " have a liver," often being dull and " bunchy " for days at a time; perhaps he really has a liver, for he is as fat as he well can be; they like a mealworm, though I seldom give them one, and when I do Mr. Shama will have it out of their beak, if he sees it, before they can toss it up and dispose of it. They will play with a dead mouse and, I believe, have swallowed a small one [my Sulphur-breasted Toucan used to catch mice, as the blood-spattered perches amply demonstrated, and his lack of appetite indicated the same when I went down in early mornings to feed—no uncommon occurrence either.—Ed.]. Grapes and banana are the favourite fruits, though they eat a lot of apple pecking it off the solid fruit. I can distinguish no difference in the call of the sexes, but since the cold weather the male has hardly uttered it, she every day. The call is made with a profound bow and then again with the head right up, and so on alternately, perhaps four or five times. I only hope they will survive till the summer, as they very often examine nesting blocks.

In the Small species section I have:

1 pair African White-eyes (*Zosterops virens*).
4 Cordon Bleus (*Æstrilda phoenicotis*).
1 Yellow-billed Cardinal (*Paroaria capitata*)—recent widower.
1 pair Yellow-winged Sugarbirds (*Coereba cyanea*)
♀ Black-backed Tanager (*Calliste melanonota*).

The African White-eyes spent last summer in the outdoor aviary, but made no attempt at nesting.

The Yellow-winged Sugarbirds, which I got from our Editor, are a grand pair, the cock is a perfect gem. May they only survive to go out in May!

The hen Black-backed Tanager (cock, whose skin I have, was a gorgeous specimen) is the sole survivor out of five which I bought from Hamlyn last July—a tale of woe which I will not enlarge upon.

SMALL TERRACE AVIARY: This only now contains three Triangular Spotted Pigeons, two of which (very fine ones) were very kindly given to me by Lord Lilford, to change my blood. Besides my old breeding pair I have three young ones in the House Aviary, and I am now putting up a small lean-to temporary aviary for some of these birds, from which I intend to let them out (to roam at liberty) by degrees, commencing in the month of April, when the wild Wood-pigeon shooting in this neighbourhood is over—there are larger flocks this year, it may be noted in passing! I see no reason why the African Speckled Pigeon should not be naturalised; they are very hardy and nest in exactly the same manner as the Stock Dove—indeed last summer, by changing over the eggs, I got a young Speckled Pigeon reared by a wild Stock Dove, and a beautiful pair of the latter, hatched and reared by my Speckleds in the aviary!

It may be of interest to state that the young may be separated from their parents when three weeks to a month old indeed if they are left much longer their parents persecute them relentlessly and peck them raw, especially if they have gone to nest again!

In the LARGE TERRACE AVIARY I have:

pair Red-billed Weavers (*Quelea quelea*).
pair Bearded Tits (*Parus cristatus*).
pair Siskins (*Chrysomitris spinus*).
pair Twites (*Linota flavirostris*).
pair Bramblings (*Fringilla montifringilla*).
cock Snow Bunting (*Plectrophenax nivalis*).

There have been many losses in this aviary during the autumn and winter, and the stock is much reduced. A pair of Scaly-crowned Finches (*Sporopipes squamifrons*) disappeared before Christmas, and I have not yet found them dead or alive!

The Bearded Tits nested twice, four infertile eggs on each occasion. Cirl Buntings also nested and hatched out but failed to rear; this pair are now dead.

It may interest members to know that five Waxwings were seen in this parish (Leadenham, Lincs.) in November feeding on the hips of the wild rose, and I have heard of others on or nearer the coast. Some have been advertised for sale, and I rather regret not having bought a pair, never having kept them. Any experience members may have had with them would be interesting, at least to me!

So much, Mr. Editor, for my attempt, which, I fear, does not contain anything very interesting, but it may relieve you from having to write one article. May I suggest your next be "Diseases of Birds, their Symptoms and Cure."?

[Such an article must come from the pen of one of our Veterinary or Medical members perhaps one of them will respond to, not only Capt. Reeve's suggestion, but to a universal need.—Ed.]

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The Desolation of Wartime in Lady Dunleath's Aviaries and their Re-opening.

By The Lady Dunleath.

During the War I was obliged to hand my aviary and all my birds to others to look after, as I had no time myself to attend to them; consequently they gradually died off—Cranes and other large birds, water birds as well as the small ones.

I did not begin to get any more birds until May 1921, when I brought from Paris four little Waxbills (of which one died); from Pau I brought four Goldfinches (one escaped); from London four Black-headed Nuns, two pairs of Waxbills, one pair of Masked Doves (the cock dove, which was a great beauty, was killed by accident), one pair of Crossbills, some Budgerigars, one pair of Red-headed Finches, one pair of Pekin Robins, one pair of Zebra Finches, and one pair of Blue-breasted Waxbills. I was unlucky with these, as eleven died between July and October.

On January 11th I brought back with me from London two pairs of Black-headed Nuns, two pairs of Bishops in colour, one pair of Silverbills, two pairs of Ribbon Finches, one pair of Fire Finches, one pair each of Whydahs, Snow Buntings, Shore Larks, and Baya Cowbirds. The cock

Snow Bunting died the day after I came home, but all the others are in the outdoor aviary and look very well indeed. Before putting them into the aviary I kept them for ten days in large cages in a room—a cock Redpoll died, also a pair of Reed Buntings, which I brought back all in splendid condition and plumage; the result of the post mortem was pneumonia, and I was advised to disinfect the cages. I had my aviary-cottage all cleaned and disinfected with Jeyes' Fluid, and then put all the new birds into the middle division of the cottage, shut them in for three days, and opened the door into the large flight the first fine day, and I have not lost a single bird.

I got ten pairs of Avadavats from Hamlyn on January 15: they came altogether in a box by themselves, and were in perfect condition, except three little hens which died. I am keeping them in a large cage until I can turn them out into the aviary, and they are like rubies, very beautiful, and sing all day—there is no fire in the room, and the window is open all day; two incubators which I am working keep it warm enough.

I have one canary sitting on three eggs out of doors; she built in an absolutely bare fuschia bush, so I put branches over and round the nest and a piece of zinc as a roof and covered it with branches and she seems to be quite comfortable—whether she will hatch and rear her young ones remains to be seen. I have another canary sitting on four eggs inside the cottage, and one has made a lovely little nest in a deep basket which was hanging on a nail, and has one egg. The Red-headed Finches have built inside the cottage and have laid one egg.

From February 1 to February 9 we had not even a glimpse of the sun, and the east wind from the sea was very bitter. My aviary is only warmed by one Duplex lamp, hanging up in a net wire cage, in the first division, where the canaries and waxbills are; it is lighted at 6 p.m. and put out at 8 a.m. The window, which draws across, is left open about six inches to let the birds in number 1 division fly in at night and out early in the morning. I hang a wooden tray (3ft. square and 3ins. deep) by a single wire from the roof, and put all the food on it; this frustrates the mice—two troughs with nine holes in each for seed (these troughs save an enormous amount of seed), and two little dishes of soft food, an apple cut in half; the seed

I give is canary, Indian millet, and rape; the soft food I make and keep in a tin—bread dried and browned in oven and pounded up, sponge cake crumbled fine, crushed hemp and pounded cuttlefish; I mix this, as required, with grated carrot which makes it the right consistency.

I attend to the birds myself, and have concrete baths, 3ft. by 4ft. in each division outside; if they freeze, which is very seldom here, I put water and dishes inside the cottage; the baths are cleaned out about once a month, and rain keeps them clean and fresh.

I have a few guinea pigs in each division, and they keep the grass quite short—they are Abyssinian.

One day late in October I found the cock Crossbill (the hen was dead) struggling on the ground under some bushes; his head seemed to be quite smashed in and bleeding. I thought it was a hopeless case, but I brought him in and kept him very quiet in the dark, put a few drops of milk and brandy down his throat, and fed him on bread and milk; he got better but was paralysed; then he gradually began to eat seed and to help himself along with his beak and then to climb up the side of his cage, and about a fortnight ago I let him out in the aviary with the new birds, which were shut in. I put his food on the ground and some branches on the ground and now he can fly quite well, and when I opened the door flew out with the others. I felt very proud of my patient—he is such a delightful bird, and I cannot imagine how he was hurt.,

Can anyone tell me if Goldfinches are likely to nest in an aviary and if so what kind of tree would they require?* They are now nice and tame. My pair of Bullfinches reared two broods in the aviary, and the hen used to eat mealworms out of my hand while sitting on her nest, but I fancy that Goldfinches are wilder by nature—we have none at all in this district; we have seen a few pairs of Bullfinches which are rather destructive to the fruit buds, but which, to our gardener's disgust, I absolutely forbid him to destroy. I find if there is the least hole in the wire, as sometimes happens, wild birds invariably find their way in—Chaffinches, Green Linnets, Tits and Robins—This is an advantage, as it warns me of the hole, and I always catch them and let them go.

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* Yes, they like an apple or other similar fruit tree, but are quite ready to take the "next best thing."—Ed.

I hope in the future to be able to give a further account of my birds

Early Stray Notes.

By W. Shore Baily.

St. Valentine's day is past and over, and many of our English birds have mated up and are now in full song. In the aviaries some of the exotic occupants have also begun to think about future housekeeping operations. My two cock Scarlet-headed Marsh-birds (*Leistes guaianensis*) have been singing since January, and the Military Starlings (*Trupialis militaris*) in the aviary with them have also started, but in a much lower and more subdued key than that in which they indulged when first turned out in September. Both these species have, in addition to sundry Sparrow-like chirps, quite good songs of their own, equal, in fact, to those of some of the foreign thrushes, and superior to the efforts of any of the other Starlings that I have kept.

My Scarlet-headed Marsh-birds were in the juvenile plumage when I got them and had black heads; they have now assumed rich yellow heads, and would not be taken to be the same birds as their parents. Two others that I have had indoors all winter, as they were not in good condition, are still in the mottled black and yellow stage of colour. I am hoping that these will prove to be hens, so that I may have a chance of breeding the variety. No doubt the yellow colour on these birds will turn to scarlet as they get older. Another bird that has been in full song for some time is my African Ground Thrush (*Geocichla litsibsirupa*). The song is not very loud, nor is it so sweet as that of our English bird. I have two of these birds—I hope a pair, but as they were always quarrelling I had to separate them. It is strange that with all the *Turdidae* this fighting between the sexes and each other seems to be a common characteristic. I had a couple of hen Ring Ouzels in a very large aviary, but in spite of the space they were always quarrelling, and as one kept the other away from the feeding

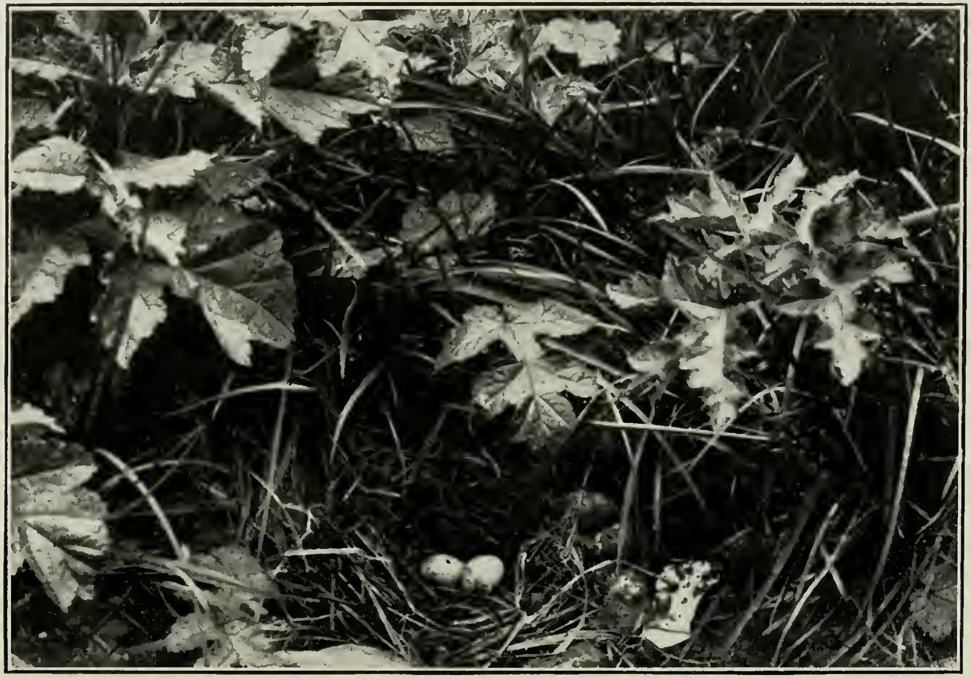

Photo by W. Shore Bailey.

Nest of Mouse Lark. *(Mirafra sabota).*

dishes I had to separate them. The one left now spends much of its time fighting with a hen Mistle Thrush, and they have royal battles, but the worst of it is they do not confine their attacks to their own species or each other, but do not hesitate to fly at such large birds as Satyra Pheasants, which, as well as the waders, they easily drive away from the feeding dishes. My African Olivaceous Thrush, which was singing very nicely in November, much to the astonishment of the common thrushes round about, which used to come and sit on the top of the aviary to listen to him, is now silent, and I think that he has got a touch of liver; the Bobolinks have been singing very nicely the last few days. I am hoping to get nests from all these birds this coming season, and, as I believe none of them have yet been bred in this country, I hope to have something to write about for publication in "B.N."

With regard to the season now past, I think that I have given our readers a fairly good account of most of the happenings in my aviaries, and I wish that other members would follow my example, when the labour and anxieties of our Editor would be considerably lightened. There were, however, one or two other episodes that may interest. Amongst these was the rearing of a Common Quail. I had had the parent birds for two seasons in one of my medium-sized aviaries, where they made no attempt at nesting. Last season I turned them into my large Waders' aviary, where they promptly lost themselves in the thick cover. Early in the spring I heard the cock calling a good deal, but we did not see them for several months, and had, in fact, given them up for dead, when one day, whilst looking for a finch's nest, I flushed the hen and one young one about half-grown. I don't know whether more were hatched, but we never saw them, nor did a diligent search reveal the eggshells or nest. The young Quail is now indistinguishable from its parents, and has wintered out without any shelter whatever. In a near-by aviary a cock common quail with a hen African quail did not nest, but I am inclined to think that this was to some extent due to the interference of my little Temminck's Courser. This charming little bird made violent love first to the South African hen, and afterwards, when the cock Egyptian was turned down, to the latter; it was extremely amusing to watch these birds take mealworms from the bill of the little Plover. The Quail would always come at his call, but they did not always get the worm, as a little, self-caught hen Blackcap became quite expert at snatching the worms from the beak of the Plover; the latter would take these from my hands and would keep the game up as long as I cared to hand them out. I am afraid that I wasted much time in this particular aviary.

Temmincks' Courser and Egyptian Quail. *Photo by W. Shore Baily.*

Amongst other birds that nested was my Mistle Thrush. It built a typical nest and laid four eggs, which were, of course, infertile, as I had no male. Another English bird to nest was a Brambling; here again full success was not obtained. It made rather a neat nest in a thorn bush and laid four pretty eggs. One pair of my Snow Buntings built a nest but no eggs were laid; I am hoping for better luck with them this season. Bad luck pursued my Californian Quail; about twenty chicks

Photo by W. Shore Baily.

Nest and Eggs of Bramble Finch.

were hatched in two broods, but none were fully reared, and I rather think that a change of blood is necessary. No luck was met with amongst the Pheasants, which are kept in the aviaries with the small birds, the only young reared being two Satyras, one Cabots, and one Crossoptilon. The Waterfowl were very little better, six Upland Geese and 16 Chili Wigeon being the only ones reard, so we have not greatly increased the inhabitants of the Boyers House aviaries in 1921.

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Budgerigars, "French Moult," and Continental Methods of Breeding.

By Wesley T. Page, F.Z.S., M.B.O.U.

This article (largely a compilation) is inspired mainly by a letter received from Mr. J. W. Marsden, and a translation (parts of which I am quoting herein) from *L'Oiseau*. I will first quote extracts from Mr. Marsden's letter:

"You know that for a long time now I have been sure that "inbreeding is not the cause of 'French Moult'—a French aviculturist, "F. Mérel, thinks it is the lack of animal food, and I am also of this "opinion."

"I am building three new aviaries for budgerigars, so hope to "get some good colours next year. I find an aviary six or eight feet "square amply large enough for three or four pairs; with me they do "better than in larger ones and pedigrees are much more easily kept. "I have Green blue-bred birds now, which, I am as certain as one can be "of anything on earth, will breed Blues. I find, as a rule, that Blues "bred from a pair of blue-bred Greens are a better colour than those bred "direct from Blues."

"Last year I put a cross of Olive in my Apple-Greens, and this "year the young are a better colour. I have bred a few pairs of Olives "this year (1921) for the first time."

"I have inbred budgerigars as much as most people, and I have "yet to find any ill effects from inbreeding, so far as I can trace. Two "years ago I procured two young Blue hens from France, and the young "from these I was careful to pair to my own pure strain, and have never "had any badly feathered young; but last year I had two or three, and "two of these were from a French hen mated to one of my own strain, "and these were in the second nest; the first and third nests produced all "strong and well-feathered birds." J.W.M.

I have not done much Budgerigar breeding of late years but my experience is that by judicious inbreeding one can materially improve one's stock, *but* only strong, vigorous specimens must be selected as breeding stock.

Some years ago I saw a crowd of Budgerigars in a roomy aviary, and I must say I never saw a more degenerate looking lot, but no cases of "French Moult" were visible, and their owner assured me that he only had isolated cases of partly feathered birds and such were killed off at once. The birds were of small size, decidedly lacking in colour and vim, and, though well-covered with plumage, they were not tightly feathered, and generally they lacked the gloss of health we all like to see. In the course of a long conversation with their owner I ascertained that he started with two pairs, which he bought from an aviary; they bred the first year well, and he retained the parent birds and several pairs of their young, allowing them to pair promiscuously, and that for several years he had so continued, with the result aforestated.

No one would start a strain of poultry or rabbits so! They would go to the headquarters of the breed they wished to go in for and secure pedigree stock for a start, and then by careful selection and *in*-breeding aim at improving same.

Some will say, but you can't secure Budgerigars so for a start, and the cases are not parallel. Be that as it may; I, nevertheless, see the analogy—one thing we may be sure of, we shall waste time and money if we simply buy two pairs of birds, and do not even take the trouble to ascertain whether they are related or not, as was the case in the instance I have quoted. Anyhow, if one cannot go to an aviary and see what the stock is like before they purchase, one can procure odd birds here and there. all from different sources, accepting none but large, strong and perfectly feathered birds, and then if the budding breeder uses common sense, and carefully selects his pairs, there can be considerable inbreeding without detriment, nay to the improvement of stock; but I repeat in conclusion that only birds which are perfect in every respect, both as to health, colour, and feather, should be allowed to breed.

The mating of brother and sister, unless their progeny are selected and paired off with unrelated mates, can only lead to degeneracy in all its varied forms.

I shall now quote F. Mérel's article in *L'Oiseau* almost *in extenso*:

"The Budgerigar, whose soft and harmonious twittering in no
" way resembles, very fortunately, its larger congeners . . . . its
" general form resembles the Swallow, except the tail, which spreads out
" fanwise like the Pheasants . . . . The Budgerigar, like all Austra-
" lian birds, is very hardy and acclimatises easily in Central Europe. The
" best and most sought for are those which are born in France of really
" imported birds, but these are rather rare subjects. The reproduction of
" imported parrakeets is not so easy to obtain as one would think . . .
" our winter corresponds to their summer, and imported birds begin to
" breed in the coldest months of the year; this must be avoided at all costs,
" for they would thus exhaust themselves uselessly. The imported parra-
" keet, which one has succeeded in acclimatising, must therefore not be
" allowed in the aviary until the spring, and during the winter all
" inclination to breed must be prevented by keeping them caged up, and
" even by separating the sexes."

" Let us suppose then that the amateur is in possession of some good
" acclimatised pairs, or issues of imported birds, and that the spring has
" arrived, the first thing to do is to instal them. The best exposure is that
" of the East. The birds have thus the first rays of the sun to warm them-
" selves from the torpor of the night, and they are sheltered from the
" midday heat. For ten to twelve pairs a place of 6½ square yards is
" necessary. The place being chosen, by preference against a well exposed
" wall, the soil will be dug up on all the surface which the aviary will
" occupy, to about the depth of a foot, in the bottom, well-levelled, lay
" wire netting, of a sufficiently fine mesh to exclude mice, which soil and
" waste the food, from gaining an entrance through the soil; then will
" be built up, on this netting, the small walls, which must form the base
" to receive the framing of the installation, that is to say, the complete
" shelter, the half shelter, and the open flight.

" The complete shelter is a shed, or rather cupboard, placed against
" the wall 6½ft. wide, 3¼ft. deep, and 7½ft. high. The front, which is
" moveable in order that it may be taken away in summer, has a door in
" the middle, and two small glazed openings to lighten the interior. Above
" the door, all the length of the front, are holes, 1⅜in. dia., above these
" holes, forming a set of shelves, will be nailed a small shelf for the birds
" to rest upon, this will be their balcony. The half-shelter is constituted
" by the roof, which projects a yard; the sides, instead of being of plank,
" as in the complete shelter, are of wire netting. The budgerigar often
" having the deplorable habit of sleeping hung on to the netting, it will
" be advisable to nail two nettings on to the posts forming the frame,
" which must be at least 2ins. thick. The first, of the same small mesh
" as the one buried in the soil; the second of a larger mesh on the outside.
" These nettings thus being separated by the thickness of the posts, will
" prevent cats devouring the claws of imprudent birds. In order to com-
" plete the installation, it will suffice to contrive a rather low door in the

" end of the open flight; then to put earth back in this part, and sand in the " others. In the open flight, which will be the budgerigars' garden, one " will plant some Thuijas, but as they are very fond of these shrubs, it " will be necessary to replace them every year."

" There now remains but to fix the perches and the logs. Those ' which are to be found at the dealers' shops are often unsuitable. In " order to be acceptable to the budgerigar the log must inspire confidence. " and it is by its shape, size, and the way in which the entrance hole is " placed that it will give the bird the sense of security. The logs must ' have the following inside dimensions: depth 11ins., dia. 4ins. The ' entrance hole of 1⅝in. dia. will be made 2ins. from the top and 8ins. from " the bottom. The top part will be closed by a lid attached to the log " by a nail, in such a way that it can be turned. This lid must not close " hermetically, in order to allow the moisture to escape, which comes from ' the perspiring young. . . . . Experience has shown me that the " pairs hardly ever change their nests and that two logs to a pair is a useless " expense . . . . the hens lay again before the departure of the young, " which caused the latter to begin the incubation of the eggs before the " clutch was complete. This explains why there are in the nests scarcely ' fledged birds, when sometimes the older ones commence to leave, which " only takes place when they are as big as their parents. The logs are " placed under the complete shelter, and some under the half-shelter at a " convenient height to be taken down for examination and cleaning after " each sitting, which is indispensable. The examination of the nests has " no disadvantage; the budgerigar never abandons its family, and this " permits an eye to be kept on the broods, to take away and replace the " hens which die on their eggs. This last is very important, as it is nec-" essary to watch very carefully that there are as many hens as cocks, in " order that harmony may reign between all the broods. The aviary " finished, furnished, and the cold weather passed, it only remains to let " the budgerigars in, and to consider their diet with a view to a good " reproduction."

" The budgerigar is fed on millet, canary grass, and pimpernal, but " on the usual fare, captivity helping, there are some anaemic specimens " and generations of degenerates. First of all, large wing and tail " feathers are missing with the young, or are cut off by their parents, " probably in order to suck the blood; then bit by bit complete baldness " sets in. In this case, nothing remains but to kill them, which is no " easy thing. I have noticed that the more degeneracy was accentuated, " the more numerous were the young. It must be believed that in this " species the prolific faculties are in inverse ratio to the physical quality " of the subjects."

" To obtain good results it is necessary, therefore, not to be content " with giving them millet and pimpernel, as, if the budgerigar is content " in capitivity with seed, it is not the case in freedom. The larger species " of parrakeets are omnivorous, and in their own country cause considerable " damage. In nesting time certain large parrakeets (Nestors) do not " hesitate, in fact, to alight on flocks of sheep, and clinging firmly to the

" fleece of their victims, strike with their terrible beaks the heads of these " animals until they have made a sufficiently large hole to completely empty " the skull. Small parrakeets, like the Budgerigar, profit by this, come " and eat the remainder. I have noticed the fact in my aviaries. I have " many times seen budgerigars clinging to the backs of Colins of California, " and seeking to stave in the head; but as the Colin is a very active bird, " the instabibility causes the budgerigars to lose their means of action, and " the small gallinaceous birds get rid of them easily enough. The Budger-" igar, therefore, needs an anmial diet; but what? Sheep's brains naturally " presents itself to our minds, but besides it being necessary to serve it " very fresh in order to get them to deign to taste it, it is a dear food, " which quickly goes bad, and is not without danger. After many trials " and experiments I have been led to suppose it is the phosphoric acid of the " brain which is the indispensable food to the parrakeet; and the surprising " results which I have obtained in offering them a nitrogenated paste, in " which phosphate of chalk rendered assimilable entered in a certain pro-" portion, have already proved to me that I was not mistaken. By " furnishing the Budgerigar, in addition to the ordinary seed, the tonic " elements of which I have just spoken, one will obtain from it all that " would be desired from February to November, the broods will follow " one another in the logs without interruption, and one will have the " satisfaction, while observing the very interesting habits of this bird, to " have the young ones as numerous and vigorous as if they had been borne " in freedom."

" The undulated parrakeet, once acclimatised and well nourished, " is rarely ill. It is congestion, caused by too great heat, which, if one " does not take care, makes the most victims. As this bird only bathes " by placing itself in the rain, it is necessary during the summer when " rainy days are rare, to furnish it from time to time with its priveleged " bath, either by means of a jet of water, or with a watering-can provided " with a rose. Some individuals, and more particularly the badly nourished " hens, which allow themselves to nibble the wings and claws of their young, " are sometimes attacked by complete blindness. I have not been able to " diagnose this complaint, but I have found the remedy for it. When a " bird is found in this condition, eyelids closed, cheeks unfeathered, it " suffices to daub round the eyelids with tincture of iodine, taking care to " put some on the suture which joins them together, and to place the " invalid in the infirmary."

" At the end of two or three applications scabs form, which drop " off, the eyelids open again, and the eye soon recovers its normal condition. " The hens also perish in laying time for want of care when, a few days " after pairing, a hen is seen sitting with her back up, there are nine " chances in ten that the discomfort is caused by the stoppage of the egg. " After being assured of it, it suffices to moisten with oil the affected part, " and to hold the invalid over steam for a few minutes, then to place her " in a small cage. At the end of two or three hours the egg will be " found the object of the misfortune."

> "The Budgerigar has now numerous varieties, of which the most "prevalent are the Yellow and the Blue."

I have given the above interesting notes very fully, as they contain much of interest to B.N. readers. Judging from reports it would appear that degenerates are much more prevalent in French aviaries than in our own. I have always made a practice in my aviaries of supplying during the breeding season seeding and flowering grass in unlimited quantities, also broken biscuits, oats, and insectile mixture, and I have never had a single case of French moult occur, and I used to breed a good many at one time. Again I never allowed one pair to have more than three broods per season, and never under any circumstances paired up other than absolutely perfect birds in every respect.

English aviculturists advocate two logs or husks to each pair of birds, myself as strongly as any, but it is not for the reason Mons. F. Mérel states, viz: to supply them with a change of nest, for it is a well known fact that Budgerigars, once they have settled on a nest and brought off a brood, almost invariably retain that nest for the season. The reason for my advocacy of two nests for each pair *is to give them room for choice at the beginning of the season.* I found again and again that where room for choice did not exist, two or more pairs of birds fixed upon the same nest and neither would give way, the result being delay and damaged birds, if not worse. With extra nests this difficulty was much lessened, if not entirely removed; at least that has been my experience.

Another correspondent in *L'Oiseau* gives some interesting facts on BUDGERIGARS AS FOSTER MOTHERS. Mons. P. Paillard, of Bordeaux, writes as follows:

> "Some years ago (I let Mons. Fontuna know of it at the time) for a "reason which would be too long to explain here, by inadvertence a "Calopsitta parrakeet egg was put into a budgerigar's nest. Now, what "was my astonishment one day to hear the very characteristic call of a "Calopsitta coming from a box which contained only budgerigars! On "verification I found a nest of eight budgerigars and one Calopsitta. In "spite of its importance it was perfectly reared."
>
> "Wishing to assure myself whether this rearing was a chance occur-"rence, I put in two other budgerigar's nests a Calopsitta egg; the result "was the same."
>
> "The following year I continued the experiment, by putting into "the nests, not eggs, but young; success was equally complete."

"I have often made different experiments with the eggs of small " parrakeets, like *roseicollis* for instance, and have always met with the " same willingness on the part of the budgerigar."

"Quite recently, the only pair of Calopsittas that I possess lost " two out of their three young, as the result of an accident, and not wishing " to let the pair devote themselves to the rearing of one sole offspring, I " put the latter, which must have been ten days' old, into a nest of budgerigars which has just completed the rearing of a brood, but of which " one still remained in the nest, although ready to follow his brethren. " Now, about a week ago, I withdrew from the nest this Calopsitta, which " flies quite well, and which the too small hole of the nest prevented from " leaving. This bird is in splendid health, and its adopted parents come " and bring it food on its perch directly it calls for it."

"These various experiments demonstrate clearly that the Budgerigar " accepts the rearing of birds of much larger build than its own."

"In view of the easy success that I have always obtained, I would ' not hide from you that if I had had in my aviary the eggs of parrakeets " of a much larger size than those of a Calopsitta, I would not have " hesitated a moment to attempt the experiment, which I estimate to be able, " should occasion call for it, to render great service to the breeder."

"Russ had already reported the fact of Budgerigars acting as Foster " Parents. It is remarkable that Budgerigars have been able to rear the " young of much larger species, of which, moreover, the sojourn in the ' nest is much more prolonged. It would be a good thing if amateurs " attempted the experiment, in order to ascertain if the success of rearing " other parrakeets by Budgerigars is really a thing of general order, which, " if such be the case, should prove of the greatest service in the rearing of " rare parrakeets."

Personally, I have had no experience of the Budgerigar as a Foster Parent, but our member Mr. J. W. Marsden writes upon this topic as follows:

"Some years ago I had a pair of Black-faced Lovebirds in my " budgerigar aviary; they had one young one in a husk, and when it was " just nicely feathered one morning it was not in the husk, its parents " seeming very much upset, and I could not find it anywhere, however, " three days later I found it in the next husk with four young budgerigars, " all just ready to come out; the budgerigars must have fed it with " their own youngsters."

I have taken liberties with the foregoing translations in minor details; for instance, instead of Undulated Parrakeet, I have used the commoner name Budgerigar throughout, and have Englishised phrases generally, but so far as I am aware I have not contorted the writer's meaning anywhere. Possibly some of our readers will give their views and experience upon the points raised.

Breeding Results for 1921.

By Capt. G. E. Rattigan, F.Z.S.

Although I cannot claim to have bred any rarities, I am on the whole, very well pleased with the results obtained in my aviaries last season. Practically every pair of birds in my aviaries contributed something to the increase of the avian population, except one species, viz: Dufresne's Waxbills (*Fstrelda dufresni*). This species failed to get as far as hatching out young. I am not even sure that the Dufresne's laid, but I believe they did, as the hen spent longish periods in the nest—a domed structure built in an old ivy stump, and the cock, who was a frequent visitor, occasionally stayed in the nest for some considerable time. After about a week, however, the Dufresne's were ejected from their home, after a gallant but fruitless resistance, by the Golden-breasted Waxbills, and so ended my hopes of being the first to breed these charming little birds in captivity.

A few more attempts at nesting were made, but nothing came of them. Their last effort in this direction was the attemot to convert a half-finished Red-billed Weaver's nest to their own uses, but this adventure had a tragic sequel. The Weaver, to whom the incomplete nest originally belonged, was by no means pleased to see the new tenants, although he was at this time busily engaged on a new dwelling in quite another part of the aviary . Several times it surprised the little Waxbills, busily engaged on the construction of their new home, and fiercely attacked them. At the same time the poor little fellows, since the affair with the Gold-breasts, had incurred the malignant hatred of these fierce little pirates, who never ceased to fall furiously upon them whenever opportunity offered. It was with real sorrow and a heavy heart that a few mornings later I picked up both the little Dufresne's lying dead beneath their new home. So far as I could see they were quite uninjured and had not been long dead, for their bodies were still warm; but, though no injury was observable, I strongly suspect the wretched Weaver, a blow from whose bill would probably prove quite sufficient to end the lives of such frail little creatures. These little Waxbills are, in my opinion, most fascinating little people, and, to borrow an expression from our Editor, are "always in the picture." Unhappily they are very delicate when first imported, and need a lot of care and attention for the first few months; even then they are by no means hardy, and a prolonged wet spell at any time of the year would probably kill them if in an outside aviary.

I fear I have rather allowed my pen to run away with me when writing of this species, but, next to the Violet-eared Waxbill, this is my favourite amongst all the small seed-eating finches, which have so far come my way, so I must crave some indulgence from the reader.

I will now append a list of birds successfully and fully reared by me this season. All in this list have either been sold or are actually living in my aviaries at the present moment.

LIST OF BIRDS FULLY REARED IN 1921.

From 2 pairs Quail Finches (*Ortygospiza polyzona*)	2
From 2 pairs Green Cardinals (*Gubernatrix cristata*)	2
From 1 pair Red-crestedCardinals (*Paroaria cucullata*)	5
From 1 pair Yellow-billed Cardinals (*P. capitata*)	3
From 2 pairs White Java Sparrows (*Munia oryzivora*)	2
From 1 pair Gold-breasted Waxbills (*Sporaeginthus subflavus*)	1
From 1 pair Red-headed Finches (*Amadina erythrocephala*)	4
From 2 pairs Rufous-backed Mannikins (*Spermestes nigriceps*)	4
From 4 pairs Zebra Finches (*Taeniopygia castanotis*)	16
From 1 pair Saffron Finches (*Sycalis flaveola*)	2
From 1 pair Red-headed × Cutthroat Finches (*Amadina erythrocephala* × *A. fasciata*)	13
From 2 pairs Green Budgerigars (*Melopsittacus undulatus*)	11
From 2 pairs Blue Bred Green Budgerigars (*Melopsittacus undulatus*)	2
From 1 pair Californian Quail (*Lophortyx californica*)	15
Total number of birds reared from 23 pairs	82

The pair of WHITE JAVA SPARROWS which I had in one of my outside aviaries laid no less than twenty-six eggs, possibly more, during the season. Anyway, I came across that number when dismantling the aviary after removing the birds to winter quarters. As far as I can make out, their mode of procedure was to lay a clutch, usually four, I think, incubate steadily for about a week, take a couple of days off, then lay another clutch and so on all through the season. Only two birds were actually hatched, which were successfully reared, and fine, strong young birds they were when I parted with them. One of these young birds was rather prettily marked, being pure white save for the top of the head, neck and saddle, which were of a beautiful silvery grey. The second youngster was, oddly enough, almost a pure grey like the wild birds; both parents are pure white without blemish.

Budgerigars: These were most disappointing, especially the Blue-breds, and Yellows; one of the latter mated with a Green cock in spite of all my efforts to prevent it, and this pair produced five young, which were fully reared, and, of course all greens! The legitimate mates of these two birds apparently sulked instead of making the best of a bad job and settling down together; they fruitlessly, though persistently endeavoured to win back their faithless spouses. Being unsuccessful in this, one or possibly both of the injured parties invaded the second nest of the faithless ones and destroyed (actually tore to pieces) a brood of four fine young birds, which were just on the eve of leaving their nursery.

Of all the species of birds bred this season, by far the most troublesome and difficult to rear were the Yellow-billed Cardinals. After leaving the nest I found that egg-food, which up to this time appears to suit them very well, would not do at all and invariably gave the birds very severe bowel trouble from which they succumbed in a few days. One had either to provide them with a most generous supply of live food, and mealworms would not suffice by themselves, or the birds made no progress, and soon died off. To obtain food of this nature entails considerable time and labour, as I know to my cost, so unless an aviculturist is favourably situated for obtaining live food and can spare the necessary time and labour in collecting such elusive quarry, I should not recommend their trying to breed this species: though in other respects it is one of the most attractive of the imported species of Cardinals.

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The Great Tinamou.
(Rhynchotus rufescens.)
By W. Shore Baily.

The " Perdiz grande " or Great Partridge is one of the largest of the South American game birds, and if one rules out the Curassows, Guans and Waterfowl it is certainly at the top for size. It is not by any means a bad sporting bird, as it lies well, and when flushed has a strong and rapid flight. As a table bird it is not to be despised, being about the size of a hen pheasant.

The sexes are alike, and, although I have had my pair of birds under close observation for the last twelve months I am still unable to sex them.

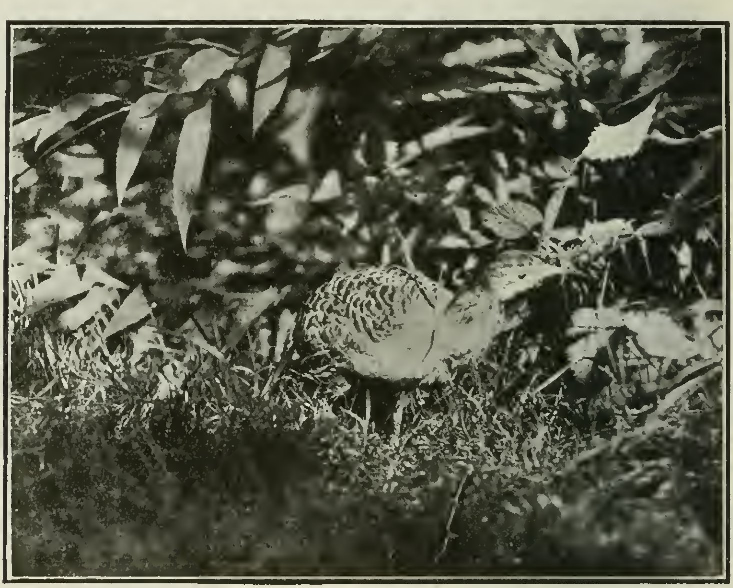
They are interesting birds in an aviary, as their habits are so different from those of most of the other birds one usually keeps. They are solitary birds, and spend a good deal of their time hiding in clumps of grass and other cover, usually as far away from each other as it is possible to get. Their neutral colour makes it difficult to see them, even when crouched in very short cover, and I have, on more than one occasion, almost stepped on one of them. When this happens they rise straight up with a tremendous whirr, louder, I think, than that of a cock pheasant flushed under similar circumstances.

Early in the spring one of them, presumably the cock, commenced to sing, if song it can be called, and shortly afterwards I found that the hen had scraped out a hollow in a clump of grass, and had laid four eggs. It appears from Hudson's book that the cock sits, and, as from the time of commencement of incubation the male's song had ceased, this is probably correct. I allowed the bird to sit for a couple of weeks, when on testing the eggs I found them to be infertile. Probably a spell of easterly winds about the time the hen was laying had something to do with this. As soon as the eggs were removed the cock again started singing, and the hen was soon again sitting in the same clump of grass. After allowing the bird to sit for a week or two, I removed the eggs, which this time were five in number, to a broody hen, and, whilst I was away for a few days' holiday, three chicks were brought off. Unfortunately I did not make a note of the exact time of incubation. The chicks vary much in size, but were all very strong and active from the start. When about a fortnight old I turned

by W. Shore Baily.

Rufous Tinamou Incubating.

them loose in one of my aviaries with the hen. To my astonishment they promptly deserted her, each one taking up its quarters in a different part of the aviary, only coming together when feeding times came round. They now began to show great pugnacity, attacking each other without the slightest provocation. Strange to say the bird attacked made little attempt at defence, contenting itself by making a similar attack, when it could do so at all, unexpectedly. I fed them on mixed biscuit meal, mealworms, and gentles; also with what seed fell from the small birds' tables. They grew and feathered very fast, but were still covered with long hair like filaments, which gave them a very curious appearance. Although at three weeks old they were well able to fly, they seldom did so, contenting themselves with running and skulking in the long grass and other cover. At five weeks old there was still the same comparative difference in size between the three birds, the largest being quite twice the size of the smallest, and the third bird being midway between the two. I don't know whether this had anything to do with sex, but it may have been so, as they all looked equally healthy at this time, and I had every expectation of fully rearing them. Unfortunately a change of weather came soon after this and I lost the medium-sized bird from septic pneumonia; about three weeks later I lost the small one from the same disease, and the survivor also succumbed a few weeks later, being at the time nearly as large as its parents. Such are the vicissitudes of aviculture!!



By W. Shore Baily

Young Rufous Tinamou.

In the meantime the old birds had again gone to nest, but, as it was some time before I could find it in the then rather dense undergrowth, I decided to let them alone. On the 24th August they hatched off two young ones from five eggs. These were strong runners at a day old, and adepts at taking cover: as the weather was fine and the nights warm I had hopes of rearing them, but it was not to be, for a week later they had disappeared and I never found their bodies.

Photo by W. Shore Baily.

Young Rufous Tinamou.

Photo by W. Shore Baily.

Young Rufous Tinamou.

Writing in *Argentine Ornithology* Hudson says:—

"This species is solitary in its habits, conceals itself very closely in the grass, and flies with the greatest reluctance. I doubt if there is any bird with such a resounding flight as the Tinamou: the whirr of its wings can only be compared to the rattling of a vehicle driven at great speed over a strong road. From the moment it rises until it alights again there is no cessation in the rapid vibration of its wings; but like a ball thrown by the hand, the bird flies away with extraordinary violence until the impelling force is spent, when it slopes gradually towards the earth, the distance it is able to accomplish at a flight being from 800 to 1,500 yards. This flight it can repeat when driven up again, as many as three times, after which the bird can rise no more."

"The call of the Large Partridge is heard in fine weather at all seasons of the year, especially near sunset, and is uttered while the bird sits concealed in the grass, many individuals answering each other; for although I call it a solitary bird, it being a rare thing to see even two together, many birds are usually found living near each other. The song or call is composed of five or six notes of various length, with a mellow flute-like sound, and so expressive that it is perhaps the sweetest music heard on the pampas."

"The eggs are usually five in number; nearly round, highly polished, and of a dark reddish-purple, or wine-colour; but this beautiful tint in a short time changes to a dull leaden hue. The nest is a mere scrape, insufficiently lined with a few grass leaves. The young birds appear to leave the mother (or father, for it is probable that the male hatches the eggs) at a very early period. When still very small, they are found living, like the adults, a solitary life, with their faculties, including those of flight, and the melodious voice, in a high state of perfection."

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Correspondence.

OUR SOCIETY AND ITS JOURNAL.

Sir,—Readers of Bird Notes do not always realise how very much they themselves contribute to the value of its contents, and how much the Hon. Editor depends upon them for copy, but alas in vain. News and information concerning their Birds and Aviaries and all the incidental activities and events which are so vitally interesting, such as: rare arrivals, nest boxes, food, are all more or less a common bond between us, and none need fear that they are giving trouble, or that their news is of no importance—all news is of use to someone. It is impossible to keep members fully informed of the affairs of our little world if they themselves keep the titbits tight in their own domain, and neglect to communicate them through our pages to others. All keen members like to know what is occurring in the aviaries of others, therefore consider for one moment and keep the ball rolling.

Publicity is the breath of our cause; let us one and all show our magazine to anyone keen on birds, be they keen on English or Foreign, and by this means obtain new members. How many societies which have shows do not even know of our existence? I trow a goodly few; interest them, and obtain our support at their shows and a class or classes for our members, and we will do the rest.

It has been freely stated at various times that members would be glad to show others their aviaries; let all who are keen on the following, drop me a line. One proposes to sub-divide our members into four classes: North, East, South and West; afterwards to make up small parties to visit aviaries on given dates suitable to the members who are to be visited. Let us have a show of our own, each member to contribute to the fund necessary, to provide prizes, etc. The show to be open to all, whether members or not. If found convenient we might have a meeting, for a concert or dinner. Those sending in their names please state who would be willing to act as Hon. Secretary for their own particular district. If agreeable to one or all of the above suggestions, and any further suggestion will be received with thanks.

Finally we want all members to do their share in increasing the general interest of the club by doing all in their power as above stated; otherwise the prizes for the best article of the year will be withdrawn at the end of the present year, as we regret to say that it has met with hardly any response.

(Major) A. E. SNAPE,
Manchester, 14:2:22. *Hon. Sec.*

NEW RACE OF BLUE-BONNET PARRAKEETS.

Sir,—The new race of Blue-bonnet Parrakeets was discovered between Perth and South Australia and West of Naretha, where apparently it is quite common, and is kept as a cage bird.

It resembles the common form in size and general markings, but the blue on the forehead is a paler, brighter shade, and the red patch on the belly is entirely wanting, the whole area being pale lemon-yellow. There may be traces of red under the tail, and the wing-patch is a kind of pinkish shade, neither olive as in *xanthorrhous*, nor red as in *haematorrhous*.

Havant, 10:2:22. (The Marquis of) TAVISTOCK.

VISITING MEMBERS' AVIARIES.

Sir,—I heartily agree with Mrs. Read's letter, and should be delighted at any time for any member to come and look at my birds. I fear, however, I am in a comparatively out of the way locality, and also that I have not much worth showing, but any member is welcome to see what I have.

Leadenham House, Lincoln, 17:2:22. (Capt.) J. S. REEVE.

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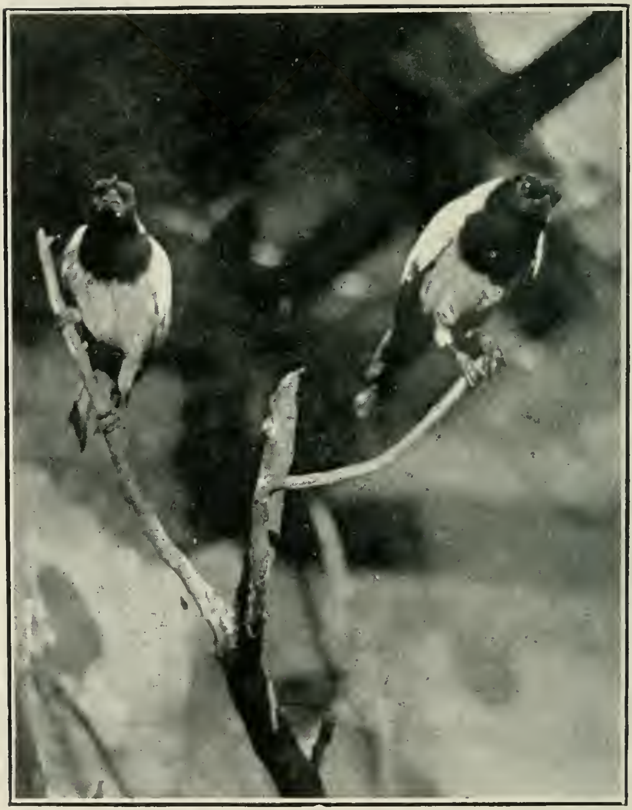

Photo by W. Shore Baily.

Azure Jays.

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BIRD NOTES:

— THE —

JOURNAL OF THE FOREIGN BIRD CLUB.

Some Blue Jays.

By W. Shore Baily.

America is the home of the Blue Jay. Just how many species North and South America can boast I do not know, but the number must be large. I have met with three species myself out there—the Eastern Blue Jay (*Cyanocitta cristata*), the Blue-fronted Jay (*C. stelleri frontalis*), and the Coast Jay (*C. stelleri carbonacea*). All these birds have a good deal of blue about their plumage; in fact, blue seems to be their prevailing colour. Even our English Jay has the brilliant blue wing-coverts, so much in demand by our Salmon fishers. The habits are very similar in each species; very inquisitive, and arrant thieves. They are nearly always to be met with in suitable localities, and I have frequently seen them in the American city parks.

Photo by W. Shore Baily.

Pileated Jay.

On ranches, at any rate where poultry are kept, they are shy, as their egg-stealing habits make them very unpopular.

They all make good pets, and do well in confinement, being easily catered for, as they are practically omnivorous.

By far the most beautiful member of this family is, to my mind, the Azure Jay (*Cyanocorax caeruleus*), a native of the Argentine. This is a large bird, nearly twice the size of the European species. With the exception of the head and throat, which are black, the whole of the plumage is a brilliant azure blue, both sexes being alike. Very few of the so-called Birds of Paradise can excel this bird in beauty. This is the only one of the Jays, with which I am acquainted, that has any song; most of them are harsh and noisy screamers. Both my birds have a well-sustained song, pitched in a low tone, closely resembling the warblings of our starling, and not unlike that of the Budgerigar. They also have other and harsher calls, uttered when alarmed or otherwise excited. Both birds feed each other and are affectionate, but I am not yet certain that they are a true pair. Time alone will show.

Photo by H. Shore Baily.

Mexican Blue Jay.

Another pair I have, from Central America, are only about half the size. The colour areas are the same, except lower parts, which are black, but the blue is much paler. They were sold to me as Yucatan Jays, but Dr. Amsler tells me that these have yellow legs, and, as mine are blackish, I take it they must be referred to some other species.

Another bird I was offered recently was of a uniform sooty blue, but as the price asked was high, and it was not a pretty bird, I did not take it. This may have been *Xanthura beecheii.*

One other Jay in my collection is the Pileated Jay (*Cyanocorax chrysops*). This is a pretty bird, with a great deal of white about it, and much about the size of our English Jay It has a damaged wing and cannot fly, but this disability does not seem to worry it greatly, as it is extremely active in climbing about the bushes and perches of its aviary.

Writing of the Azure Jay in the *Ibis*, Mr. J. Graham Kerr says: " Very common in the hardwood forests, and sometimes straggling into the open. It has been described as being extremely shy, but I found this to be the case only with the scattered individuals one sees outside the limits of the forest. Within the forest, where it is generally found in company with *C. chrysops*, it even exceeds its companion in boldness and curiosity. It is always the first to catch sight of a stranger within the forest, hopping about in the branches all round him, peering at him curiously and all the while raising an alarm with harsh cries (*caa-caa-caa*). The natural boldness of the bird was well shown by the behaviour of one shot in the wing by Col. Ralcedo, and given to me. The wing was shattered at the carpal joint, so I snipped off the entire manus, and dusted iodoform over the wound, to stop the bleeding. The bird remained for several hours very weak from shock and loss of blood, but next morning was again quite lively. It hopped about with the utmost confidence, ate and drank out of my hand, and finally had the presumption to jump upon my knee, and begin to tear pieces of flesh out of a bird which I was dissecting at the time. When out in the open, on the other hand, this species is exceedingly wary and difficult to approach."

Some Notes on Crimson-wing Parrakeets.
(Ptistes erythropterus.)

By The Marquis of Tavistock.

I have kept this very beautiful Australian parrakeet for many years and under different conditions, but have not yet induced it to breed successfully.

My early ventures in Crimson-wings were not encouraging. They are extremely sensitive to septic fever infection and I had the misfortune, when living at my old home in Bedfordshire, to introduce the disease into my collection in a very virulent form. Every Crimson-wing caught it and died, and, for quite a number of years afterwards, odd cases occurred among birds particularly liable to the germs and Crimson-wings did not flourish. Finally, in 1914 I decided to try the birds at liberty, and I released three good pairs with cut wings, in grass enclosure. In time they moulted and made their exit, staying well, and promising to be a success. But, during the winter I was told they had developed a passion for entering chimneys, of which nothing would cure them, and in the end every one of the six met an untimely fate.

After so disastrous an experiment I gave up all idea of having Crimson-wings at liberty and contented myself with keeping one or two in my aviaries. They did not breed, as I had bad luck with my hens, and the one which lived longest was a very ancient bird, who seemed to have been caged for many years before I had her.

In the summer of 1920 I bought a pair from one of our members, who informed me that they would not agree. When they were turned into an aviary, together, the cock at once attacked the hen, but, being in breeding condition, she ignored the amiable way in which he pulled out her feathers, and soon afterwards they were observed mating. After that they got on quite well together, and the hen laid several eggs, but showed no inclination to sit. Some of the eggs I put under a Yellow-bellied Parrakeet *(Platycercus flaviventris)*, but they proved infertile. Last year the pair did nothing and when they began to moult, I moved them from the Isle of Wight to my aviaries near Havant. Besides the pair, I had two adult cocks, one tame and one wild; in the autumn I received another adult cock and two young hens. One of the latter died, and the survivor was kept in a cage during the winter. In October, after some hesitation, I decided to try the cock of the pair at liberty, intending to catch him up at once should he show any weakness for chimneys. In the aviary he was nervous and unsteady, but I hoped that, like many birds which are wild in an aviary, he would become tamer when he found he could always get away. In this he justified my expectations. Choosing a fine afternoon without much wind, I drove him gently out and retired to a distance to watch his behaviour. He flew into a small tree near the aviary, where he was soon joined by a cock King, who was interested in him, as a relative, but showed no desire to molest him. After a few minutes he went into some taller trees and evidently enjoying his liberty, flew from one to another, followed by the King, making a half circuit of the garden. After a time I felt a little uneasy, as his flights became longer and tended to take him further from home. However, just when I was beginning to think that he meant straying, his mate began to call loudly from the aviary in the meadow; he answered, and a moment later came swinging overhead, and was soon back at the place where he had started; I knew, then, that all was well. The hen Crimson-wing's concern at the departure of her mate was much greater than I expected, considering that the only attention he ever paid her was to chase her about, scolding her and trying to bite her. It did not seem a happy married life, but hen Crimson-wings seem to belong to that peculiar division of the female sex which prefers a husband who beats you to the monotony of the unmarried state. The cock Crimson-wing, also, for a while showed a certain jealous concern for his wife, spending a lot of time on the top of the aviary hunting off cock Barrabands and a cock Black-tail who seemed disposed to take an interest in the grass widow. The Black-tail, indeed, fell deeply in love with her, and would hardly leave her the whole of the winter, somewhat to my annoyance, for instead of delighting me with frequent exhibitions of his glorious flight, as he had been in the habit of doing, he sat stolidly by her all day and all night and gave me much trouble and anxiety in devising means of protecting him from the inclemency of the weather and the attacks of nocturnal vermin.

The flight of the Crimson-wing has been compared by Gould to that of the Peewit—a not inept comparison, although the parrakeet lacks the peculiar rounded wing of the plover. Like the Barraband, the Crimson-wing may be said to possess two flights—a dove-like one, which is used when the bird is passing from tree to tree, and a graceful swing that is employed when he is well up and bent on travelling some distance; the latter is very pleasing to watch, quite apart from the bird's glorious plumage, which makes him the most charming addition that it is possible to imagine to the rather sombre tints of a winter garden.

The Crimson-wing at liberty soon made himself at home and quickly achieved the mastery over all the other parrakeets, except the King. He was by no means daunted by the superior size and huge beaks of the Great-bills and they soon learned to give him a wide berth. Fortunately, also, he showed no inclination to explore the chimneys and encouraged by his good behaviour, I released another cock. This bird had already given us some indication of the pugnacious disposition which is the one serious drawback to the species. Soon after his arrival he had been turned into an aviary with a pair of Black Cockatoos, but he bullied them so much that it was found necessary to remove and cage him. I released him when the King and the other cock Crimson-wing were close by. He fell upon them at once and put them to flight, introduced himself to the hen Crimson-wing by a volley of personal abuse and a clear intimation that he would like to bite her, and then settled down to enjoy his freedom. Most of the time he associated with a pair of Indian Ring-necks, who did not relish his company at all, but were unable to get rid of him.

I next turned my attention to cocks No. 3 and No. 4. No. 3 was a very tame bird, who won a prize at a local show. As he was so steady and had so many companions of his own kind about, I did not trouble to keep him shut up to get used to the place, but turned him straight out on arrival. No. 4, by the way, was occupying an aviary at the time. No. 3 walked out of his cage quietly enough and began picking about the grass. Then he caught sight of an Alexandrine Parrakeet in an aviary near by, and flew on to the top to tell her how much he would like to fight her. A moment later No. 2 flew down on to the aviary. "The very thing I've waited for years!" cried No. 3 and like a parched traveller in the desert, hurrying to a spring, he rushed joyfully to join battle with his companion. For a few moments there was a good old row, but No. 3 soon discovered that he had more than met his match and was glad to retreat minus a few feathers. Next day he attacked No. 4 in the aviary and got bitten in the foot. This rather disgusted him with the place and he strayed about a mile away, where he was caught and returned to me by the owner of the cottage he entered when he became hungry. By this time I saw that my vision of four Crimson-wings at liberty could not be realized. The place was not large enough for such bad-tempered birds. I feared that the Ring-necks, one of which was a lutino, would desert if so continually pestered by No. 2, so I reluctantly caught him up and sold No. 4. No. 1 and No. 3 have done much to modify my opinion that Crimson-wings are hopeless birds at liberty. Neither has strayed, nor gone down a chimney, and while I cannot say that their behaviour to the 13 other parrakeets at liberty has been exemplary, they have at least refrained from conspicuous misdemeanours. From the point of view of ornament, I cannot speak too highly of them, and I have got more pleasure in watching them during their five months of liberty, than they could give me during a lifetime in the aviary. The two cocks occasionally associate together, but on the whole they are not on very friendly terms, and are more often apart; frequently No. 1 is with the King, and No. 3 with the hen. Soon after they were released they went on one or two rather long expeditions together and were seen two or three miles from home, but of late they have seldom left the garden. During part of the winter, when I had Barrabands at liberty, I used to shut up as many birds as possible at night, as a protection against Brown Owls, which have a disastrous fondness for Polytelis Parrakeets. The tame Crimson-wing always roosted in the aviary, but No. 1, together with an Alexandrine and a Blue-bonnet, was smart enough to find his way out again through the inward-pointing funnel of wire-netting which puzzled less resourceful birds into believing they were prisoners for the night.

In February I used, on fine days, to put a newly imported hen Barraband out in a cage on the verandah. No. 1, whose own mate had been, by this time, more or less appropriated by No. 3, took to visiting her and paying her his addresses, allowing me to approach within a few yards, and my small son within a few feet, while he was so engaged. The display seemed to consist in fetching quantities of leaves, and pieces of green stuff, and chewing them up in the lady's presence. Directly one morsel was dropped, he was off to fetch another. On days when he did not see much of the Barraband, he would spend his time courting the hen Great-bill, who regarded him with fear and dislike, and was by no means impressed by his advances. It would seem, therefore, that a cock Crimson-wing will mate with almost any female parrot or parrakeet of about his own size, or larger, and is by no means particular in his choice of a partner.

Since writing the above I have caught up the two birds for the breeding season. I may add that the scene of the experiment was not a large country demesne, but a house and grounds of moderate size on the outskirts of a town and bounded, on one side, by a busy public road. The supply of cats is a very liberal one.

◆

The Awful Mealworm.

By H. L. Sich.

As the time is arriving when some of us will want insectivorous food for our birds I think the following will be useful. I found it in *Wild Animals in Captivity* by A. D. Bartlett, the late superintendent of the Zoological Society's Gardens. He states that he tried, year after year, to rear Dippers from the nest by feeding them on the usual soft food, scraped beef, hard-boiled eggs, ants' eggs, flies, spiders, beetles, aquatic snails, shrimps, salmon spawn, and many other mixtures, but all failed, until his assistant suggested *scalding* the mealworms.

"It was soon apparent that in this condition the meal-
"worms could be digested . . . . from that moment I
"had but little trouble. The birds fed greedily upon the
"half-boiled mealworms, and I soon found them ready to
"leave the nest."

I have not tried it myself, but it might save a brood of young Quail or other birds if live ants' eggs fail, or prove unobtainable.

My Yellow-winged Sugarbirds.

By Wesley T. Page, F.Z.S., M.B.O.U.

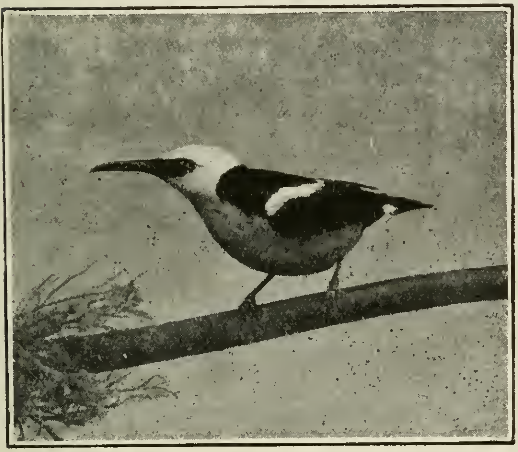


Photo by G. E. Low.

Yellow-winged Sugarbird.

I have not any of this species in my aviaries at the moment but have had several pairs in the course of my avicultural experience, but have never had the luck to succeed in breeding this exquisite species; but, before giving my personal experience will make a few general remarks about these bejewelled mites of the feathered-world.

The genus *Cocreba* wafts to us remembrances of gorgeous colour, dainty form, and graceful movement. They range over South America from Cuba to Mexico, to Southern Brazil and Bolivia. These Blue Creepers of the tropics of America rival the Humming Birds in all their fairy-like attributes—neither pen nor brush can portray their grace and beauty.

From traveller-naturalists' records we glean that they are low ranging birds, are found on the outskirts of forests, and the trees of open wooded districts; here they are perpetually searching the crevices, bark, etc., for insects; fruit is also taken.

The *Brit. Mus. Cat.* Vol. xi., gives four species, viz: *cyanea, caerulea, lucida,* and *nitida,* but in these notes we shall only deal with one—the Yellow-winged Sugarbird (*Cocreba cyanea*).

Description: *Male.* The principal body colour is rich, velvety purple-blue; lores, eye-region, wings, and tail black; cap (crown of the head) pale turquoise-blue, with a slight greenish tinge; inner webs of wing-feathers and underside of wings yellow; bill (long and curved) black; feet ruddy flesh-colour. Total length 4⅜ inches; tail 1⅜ inches.

Female. Differs from the male. Above green with centres of feathers darker; wings and tail blackish and dyed with green; eye-streak whitish; under wing-coverts and inner webs of wing feathers pale yellow; under surface pale yellowish-green, faintly striated; bill horn-colour; feet brownish flesh-colour.

Many years ago I wrote that Sugarbirds agree well together, so they may within the limits of a cage, but later experience has taught me that the reverse is the case, so far as aviary-life is concerned.

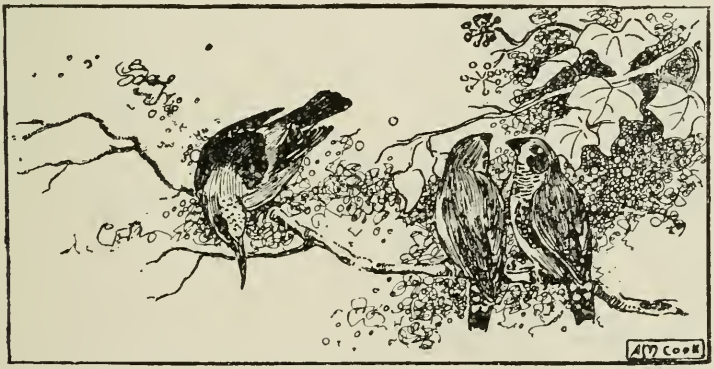
Now to return to our topic—" My Yellow-winged Sugarbirds "—I have not kept them as cage birds, except for brief periods during the winter months, so I shall leave this aspect for some fellow member to fill in.

First I will deal with one particular pair which I possessed for the three years preceding the war in my Mitcham aviary. This pair I enjoyed and had more interest from than any others which I have possessed before or since. I forget now from what source they came, but those two cocks and the one hen will never pass from my recollection while memory lasts. They came to me in autumn, were caged for two weeks in a greenhouse, where they captured many small flies, which unwarily entered their enclosure attracted by the ripe banana, which formed part of the Yellow-wings' *menu*. Then I transferred them to one of the lobby flights, attached to the main aviary, having glass at front, side and part of top; here they passed the winter—the only heat they got was from a small Beatrice oil stove, which was only alight on frosty nights, and during severe spells day and night. As the area of the lobby was 12ft. by 10ft. the temperature ruled low, and their milk-syrup-sop was frozen whenever there was a keen frost; nevertheless they did well, and the following April saw males and female in full colour and perfect condition. Early in May I opened the lobby door and drove them into the main aviary, which had a ground area of about 300 superficial feet and was 15ft. high.

Here they throve, and, though they took some syrup and fruit, lived mainly on midges, blight and other small insects. They had around them in the aviary over one hundred companions, ranging in size from a thrush to a gold-breasted waxbill, and including a few doves and quail. At this period I was tied to business all the week, so the main periods of enjoyment and observation of the birds were Saturday afternoons and Sundays. Nearly every fine Sunday morning found me on a lounge chair in front of the aviary to observe and enjoy—a small table at my side, upon which lay notebook, pencil and smokes. What a memory those Sunday mornings are! I am not going to tell the whole yarn concerning them, for just now we are only concerned with *Coereba cyanea.*

How shall I describe them? What shall I write and what shall I leave unsaid? Truly a difficult question!

First a word as to size. Total length 4⅜ inches does not seem to imply a wee bird, yet the Yellow-wings are wee fairy-like mites—the measurements given in a bird catalogue are from skins and taken from tip of beak to tip of tail, so that the actual body of the bird is little more than two inches long—often, owing to their dainty, graceful contour, tney did not appear larger than the wee Zebra Waxbill when viewed together in the aviary.



Yellow-wing Sugarbird and Zebra Finches.

The aviary being 15ft. high allowed plenty of scope for tree and plant life, and hazel, hawthorn, elder, etc., reached the top, with the topmost twigs growing through the roof-netting of flight. Upon these the Yellow-wings proved their right to be called " Blue Creepers " for no yellow shows until the wings are expanded—up and down the stems and branches they travelled searching unweariedly for every insect to be found, exactly the same as does the English Tree Creeper, and they found many. Can my readers imagine what they looked like while so occupied? I really can't describe it—their refulgent plumage glittering like scales in the sun, the turquoise crown coming every now and again into view with startling clearness; then there would be a fluttering of wings, and most of the blue would be temporarily obscured by a display of sulphur-yellow. Then down to the little pool they came for a splash and refresher after their exertions—would that I could describe them at the pond side (the pond was 4ft. by 3ft.), how wee and slim they looked, and how their colours flashed as they drank, then more so as they splashed about in the shallow water at pond side; then away to some shady twig to preen and dry themselves. But they did not rest long, for now they are on the wing—moving flashing jewels—satisfying their appetite with midges, etc., snapping beaks and moving throats, demonstrating how adept they are in capturing their minute prey.

After a few weeks I noticed that one male was solitary and that the other was definitely paired up with the female—at this stage they did not quarrel, but the trio were no longer seen altogether at the same time, and the bachelor did much skulking and was not often in the picture. Then the mated pair began collecting rubbish together—grass, fine rootlets, moss, cotton, string, and strips of paper—and a nest was commenced. It was something like a weaver's nest, but smaller, more elliptical, flat-sided, with an entrance hole at the top of one of the two flat sides (surely I ought to write front!); in spite of the mixed character of the building materials, it was a neat and pleasing construction. I meant to have a photo of that nest when it was really completed, but I waited too long, for when the finishing touches were being put to it the bachelor Sugarbird came most decidedly into the picture. Filled with fury he attacked the nest and tore and tore—in a couple of days nothing but a wreck remained—I have never seen a small bird so destructive, yet he did not attack the builders, but such was the effect of the fury with which he attacked the nest that none molested him, but let him alone to his fell work in the centre of the elder bush—nor did the builders of the nest seek to hinder him; they may have done so in the beginning, but the work of destruction was far advanced before I was aware of it. I set to work to catch up the odd male—no light task in so large a place—in the end I trapped (as I thought) him, and put him into the lobby flight again—alas! I caught the wrong one, as I found the hen would have nothing to do with the one left in the aviary; after the lapse of two days I succeeded in trapping the other male, put him in "durance vile," and returned the other to the aviary, when he was at once joined by his mate, but the nest was not repaired, nor was another one attempted, and though the same two birds spent two more summers in the aviary they never attempted to build another nest—that is the nearest I have ever come to breeding *Coereba cyanea.*

In 1916 the Mitcham aviaries were dismantled, and the Sugarbirds, with many others, passed into other hands.

Sugarbirds cannot be classed as hardy, and must come indoors from November to April inclusive. Moreover, they need watching during really inclement spells in the summer, and if showing *real discomfort* must be caught and taken indoors, and put out again when the bad period has passed. Of course, the aviculturist has to learn to discriminate between "being hipped" and real discomfort—humans and even sparrows suffer badly from the former during long spells of cold, summer rains, and take no hurt therefrom—Sugarbirds' long silky plumage gets soaked, unless they take shelter, during continuous rain and they lose the power of flight for the time being, which, however, a few gleams of sunshine soon restore. Fortunately they have the instinct either to remain in the shelter, or seek the thick interior of some cupressus bush while the rain lasts, and a rapid fly to and fro to the shelter for food does no harm. Certainly after wet those who keep Sugarbirds out of doors should ascertain that all is well or they may needlessly lose them; in this condition they can be picked up with the hand—all that is needed is putting them into a cage, hanging in the shelter, till dry, when the cage door can be left open for the bird to depart at will. Appropos of this—some years ago the late Capt. C Kennedy and I spent a few days with Mr. H. Willford. In one of his aviaries were about a score of *C. cyanea* disporting themselves amid a tangle of bush and herbage, all males if I remember aright, and what a sight they were; the weather was hot and fine, but while we were looking on a sudden and very heavy summer storm caused us to seek cover in a near-by shelter—soon the storm passed, and the sun shone again, and we began looking about again; half the Sugar birds seemed to have disappeared, but a search revealed them helpless in the grass; of course the hot sun soon put them right. and they were quickly on the wing again; but, had the rain continued, many of them would have died unless help had come to their aid; such is the beginning of many cases of summer pneumonia.

Last year another pair adorned my aviary, and, of course, the tropical weather just suited them, and they were delightful—they were a devoted couple, quite " Darby and Joan " style—they never ailed the whole season. How one could rhapsodise of their exquisite beauty and deportment, but I am holding myself in with a tight rein! But I will allow myself a few terse phrases. Now sitting at leisure on a spray of cupressus, holding sweet converse, indulging in little loving " embraces," and quietly preening each other's plumage; then on the wing, fluttering like butterflies, in the midst of a cloud of midges, when snapping beaks showed what havoc they were working. How brilliant were the flashes of colour one got every now and again. Then a short period of rest, and anon they were creeping, creeper-like, round and round, up and down, searching the bark of the standards supporting the roof of aviary flight, and they did not search in vain; but enough: I have prosed on to an unseemly length, and must perforce close with a few remarks as to their diet.

Diet: For birds in a cage as in the aviary, the main dietary is syrup-sop—milk, honey, a little unseasoned meat extract and half-inch cubes of sponge cake—and fruit. I also supply insectile mixture, of which they take a little, mealworms very sparingly, but any small spiders, flies, and any other insects one can capture can be given freely. In the aviary they, of course, have access to all the above foods, but, as far as my observation goes, they only take the syrup-sop and fruit, capturing all the insect food they require for themselves.

Who will be the first to breed this charming species? Mr. E. J. Brook has, I think, up to the present, come the nearest to success, but no young birds were reared.

Notes on a Few Well-known Species.

By Edward J. Boosey.

First of all I feel I owe an apology to the readers of this article, who will think to themselves—as I am sure a great many will—" What on earth does this fellow want to write an article about such very common birds for?"

I agree entirely, but I hold a certain official of the Foreign Bird Club responsible for the outrage in suggesting that I should do so.

At the same time I feel that in the long run it may do good in making other members, who possess really valuable and much more interesting birds than mine think, " Well if *he* writes an article, having only kept such ordinary birds, why shouldn't *I* ?"—Result, perhaps, more " copy ! "

It is only during the last eighteen months that I have been able to take up foreign bird keeping at all seriously. Before that I was undergoing that rather misnamed process " Education," at a private school, at a public school, and finally abroad. During all that time I kept birds off and on, but only the more common kinds, because, as I was away for eight or nine months of the year, it seemed useless to buy anything at all expensive.

My first birds were kept in a crystal palace aviary in the nursery when I was eight years old.

They consisted of a varied selection of Waxbills, Avadavats generally predominating, and a pair of Pekin Robins. They always seemed to be in excellent health, which, although they led such a dull existence, usually seems to be the case with Waxbills kept in a cage indoors.

Later on I worried my father so persistently for an outdoor aviary, that in the end he built me one, mainly, I think, in self-defence!

My idea of an aviary in those days was a small brick house. heated by hot water pipes. The hot pipes seemed to me then all-important for birds which lived in a hotter climate than our own. Accordingly, a small brick house was erected joining a peach-house, and the hot pipes were brought through the wall into my aviary. In this I kept Waxbills, various Mannikins, Java Sparrows, Pekin Robins, Paradise Whydahs, Melba Finches, Cutthroats, Zebra Finches, and Red-headed Finches, and, once in a moment of almost reckless daring, I bought a pair of Red-faced Lovebirds, which, however, did not live long.

I very soon got rid of the Red-headed Finches (*Amadina erythrocephala*) because they bullied everything within reach never giving any other bird a moment's peace.

The Cutthroats (*Amadina fasciata*) bullied the other birds somewhat, and, when they got tired of doing that, they built a slovenly nest and hatched several young ones, which were mostly thrown out of the nest by their villainous parents, when about three days old.

A pair of Avadavats (*Sporaeginthus amandava*) successfully reared their young ones in a nest in a German canary cage, till they were a week or ten days old, when they shared the same fate as the young Cutthroats—I know now that I ought to have given them more live food.

The hen Melba Finch (*Pytelia melba*) always seemed to me a delicate bird, though cocks lived for years. They reminded me, I remember, very much of Black-cheeked Waxbills in their habits and disposition, always skulking in low bushes, and seeming to like to remain near the ground.

Zebra Finches (*Taeniopygia castanotis*) were the first birds to rear young successfully in my aviary, and I shall never forget my immense feeling of satisfaction when I first saw the young ones flying about—I felt that it really was rather an achievement—I am glad I did not know then that the difficulty is rather to prevent Zebra Finches breeding, than to induce them to do so! Zebra Finches and Guinea Pigs have this in common, that, where two or three are gathered together, there, with as little delay as possible, will appear two or three more.

I have got at the present time five pairs of Zebras, which I shall put up for breeding about the beginning of April, and which I generally depend upon to pay for the rest of my birds' upkeep for the season.

Usually the cocks are separated from the hens about October, because I have found that winter-breeding is, on the whole, unsatisfactory, as one loses several hens from egg-binding for every nest of young successfully reared.

The cocks which are in the aviary at the present moment spend most of their time in strutting about and singing their absurd song for the edification of the hens, which are in a large cage out of sight, but within hearing distance.

Last year I bought some Red-billed (*Quelea quelea*), Taha (*Pyromelana taha*), and Grenadier Weavers (*P. oryx*), which I turned into an empty aviary.

The Tahas were uninteresting birds and never attempted to breed; the Red-bills did a good deal of unmethodical building, that is to say they tied bits of hay and fibre round whatever branch they happened to be nearest to at the moment, and then promptly forgot about it. But the cock Grenadier was a most interesting bird; he built a nest, with much chattering and wing-flapping, very much the shape of a vegetable marrow, with a projecting porch, completely concealing the entrance-hole, which was at the side, towards the upper end. The nest was quite thin at the bottom, and one could see the eggs through it: the top was thickly matted, and, I should think, almost waterproof.

The hen laid two eggs and sat for a week, when the cock decided that the nest wanted a new bottom; and when his wife's back was turned for a minute, he quickly wrenched off the bottom, dropped both eggs to the ground and repaired the nest.

The hen, however, refused to consider laying again, and I can't say I blame her!

The only attraction of Cockateels (*Calopsittacus novae-hollandiae*) seems, to me, to be the ease with which they can be bred, otherwise I have always found them hysterical, uncontrolled birds. I have often seen a perfectly peaceful aviary of birds rendered panic-stricken by one foolish cockateel. It will suddenly dash wildly from end to end of the aviary, crest erect, screaming loudly, and all for no apparent reason. Of course, by the time it has finished, the aviary is full of panting birds, all completely unnerved.

Some time ago I saw a miserable, shivering, unclothed bird in a dealers', which on close inspection proved to be a naked Pennant Parrakeet (*Platycercus elegans*). I bought it for 30s. to see if proper treatment, fresh air, Parish's chemical food and magnesia would succeed in clothing the wretched thing a bit better. That was last July; by October it was in perfect feather, and had a half-grown tail, and I thought myself lucky to have got a hen Pennant for 30s. The only thing about it was, it always seemed rather an odd bird; its movements were jerky, and it insisted upon sleeping, hanging from the roof of its cage. However, as it seemed otherwise quite fit, I bought a good cock for it, and turned them both into a large unused chicken-house, with an outside run, about last October. The cock refused to show the hen the respect due to her as his wife, and treated her as a rather tiresome lunatic-at-large!

There they lived until the end of January, when the hen died suddenly of a fit (that, I think, explains the 30s.). But I should be interested to know the explanation of this: One morning in November I found the hen minus her tail; every feather was bitten off to the root and lying on the ground, and, from that day till the day she died, although the rest of her body was perfectly feathered, she never let a single tail feather grow.

I am now on the look out for a good hen, as the cock is an extremely fine bird and will feed out of my hand, and I intend to try breeding them.

I have also got a pair of Redrumps (*Psephotus haematonotus*), which are incubating and due to hatch off in about a week's time. The cock is British bred, the hen imported.

The cock was very ill in November with, I think, enteritis, anyway I didn't think he would live; however, he was cured by glycerine mixed with a very little salicylic acid, and, by being kept in a warm room, he is now in great form and takes his wife down to have a bath immediately she leaves the nest, but as far as I can see he never does any sitting himself. In the same aviary are a small flock of Budgerigars (*Melopsittacus undulatus*), which have begun breeding, but which are shortly going into an aviary by themselves.

Also, in a large cage a pair of Diamond Sparrows (*Steganopleura guttata*); and indoors a hen Senegal Parrot (*Pococephalus senegalus*), which is extraordinarily tame and a really excellent talker. She is entirely devoid of fear, as I got her about six years ago as a nestling, and had to be fed on boiled maize. I will not go into further details about her, because I always think a minute account of someone else's pet parrot is so boring for other people!

That, I think, completes my list at present. I try to keep as much to hardy Australian birds as possible, because if, as I do, one has to go to London every day, one really only sees much of them on Saturdays and Sundays, and it is hardly worth while keeping delicate soft food eaters.

Correspondence.

SULA ISLAND KING PARRAKEET.

Sir,—I have really not had enough opportunity of observing my Sula Island King (*Aprosmictus sulaensis*) to send a good note on her, since she has always had to be kept at Binstead. I. of W.

I do not think anything is known of the species in a wild state.

My bird (♀) is about one-third smaller than the common King (*A. cyanopygius*); head, neck, and breast dark red; shoulders and wings green; rump, flights, tail, and part of the nape blue. Bill blackish, and proportionately larger than that of the common King. Shape more like that of a *Pyrrhulopsis* than an *Aprosmictus*. The bird seems quite hardy and has spent the last two winters out of doors. Last summer she laid two eggs and incubated them, but they proved infertile. Her mate is a Red Shining Parrakeet with whom she is on very friendly terms.

Havant, February 16, 1922. (The Marquis of) TAVISTOCK.

BREEDING THE PASSERINE PARROTLET AT LIBERTY.

Sir,—I have succeeded in breeding Passerine Parrotlets (*Psittacula passerina*) at liberty this year for the first time.

It would be rather interesting to make a complete record of all the foreign birds that have been bred in this country at liberty and full-winged—quite as interestng, I think, as a record of those that have been bred in aviaries. Each form of aviculture has its peculiar advantages, features and difficulties.

Havant, October 21, 1921. (The Marquis of) TAVISTOCK.

[We much regret that the above, slipped between other papers, has only just come to light. Firstly: As fully a detailed account as possible of this episode would be of great interest, if such can be sent in. Secondly: We quite agree as to the record. but, unfortunately, at the present time the Editor has neither the health nor the time to compile such a record. If any member can undertake same we shall be greatly obliged, and only too pleased to give it space in this Journal, which we certainly desire should represent every phase of aviculture—at present the Editor feels he must devote what energy he can to bring Bird Notes out at its proper date.—Ed.]

A FEW NOTES OF MY PRESENT BIRDS.

Sir,—I was able to rejoin the F.B.C. in 1921, much to my delight, after having had to give up bird-keeping during the war, with the sole exception of a favourite Grey Parrot.

In September 1920 a Brazilian friend sent me a Blue-fronted Amazon (*Chrysotis aestiva*), a pair of Cactus Conures (*Conurus cactorum*), and two Pope Cardinals (*Paroaria larvata*). I had to keep them all in cages during the winter.

Unfortunately one of the conures died (cerebral hemorrhage) at the end of about three months. I should much like to get another, to mate with the one I have left. if I could determine its sex. I should then put the pair into a good-sized outdoor aviary in May.

As for the Amazon, it is a splendid specimen, and in perfect health, but has shown no signs of being a talker.

Last May I put the Pope Cardinals into a small outdoor aviary—in June I had the misfortune to lose one through enteritis. Luckily I was able to secure another from Mr. Rogers, of Liverpool, and there seemed some prospect of a nest being built, as they were so busy carrying various nesting material about, but nothing happened. They have survived the winter, and are very fit, so one has hopes for this season.

I was now most anxious to make an attempt at breeding some species of parrakeet (my special fancy) in my largest aviary, which was originally built at Cambridge, then taken to Bury, Hunts., and from thence here (Surrey). I wrote to the Marquis of Tavistock for Stanley Parrakeets, but none were for sale just then.

In the meantime I secured a pair of *Brotogerys*—one the All Green, and the other a White-winged—charming little birds, but very uninteresting in an aviary.

Much to my delight in June I heard from the Marquis of Tavistock that I could have either a breeding pair of Stanleys, or a pair of young Barnards. I chose the Stanleys; they were beautiful birds, and all went well for about a fortnight, when, to my horror, one morning I was greeted with the news that a rat had eaten the cock bird—my feelings were too acute for words! It was the first rat I had ever had in an aviary—it was afterwards trapped, and paid the penalty of its crime, which was some small consolation. However, in September last I was able to secure another cock Stanley from the same source, a young one, which is now in adult plumage—the pair now have an outdoor aviary, with shed, covered and open flights, to themselves, and I await results! Having only one parrakeet aviary I had to cage the *Brotogerys*, which seem admirably adapted to cage-life and quite happy.

Then, I wanted something to keep with the Pope Cardinals; as their aviary was too large to be sacrificed to one pair of birds. I decided upon a pair of Indian Mynahs—these I got from our Editor—they were magnificent specimens, and had been out of doors through the winter of 1920. For a month or two all went well, then one morning a corpse lay upon the ground—there was no apparent outward cause for the disaster—the post mortem report was cerebral hemorrhage. More ill-luck followed, for about a fortnight later I saw the other Mynah looking very "puffed up"—the next, alas! he ceased to breathe—post mortem report "Congestion of the lungs. The awful weather, cold rain followed by a frost, was too much for it, as it has been for many birds this past winter, owing, I believe, to their having become "softened" by the preceding tropical summer.

My next move was to exchange the *Brotogerys* for some of my favourite Green Budgerigars. These are now living in perfect harmony with the Cardinals, and I propose, as soon as I can come across a suitable pair, adding a pair of Cockateels.

Now this little account of birds is brought up-to-date. For it the Editor's appeal for copy is responsible.

Thames Ditton, March 9, 1922. MARGARET READ.

LETTUCE AS GREENFOOD FOR BUDGERIGARS.

Sir,—I do not know whether it will interest readers of "B.N." to know that my Budgerigars are very fond of French lettuce, whether it is they have seen several British finches I have eating it, and have taken a liking to it, I do not know, but they certainly do eat, and appear to enjoy it. It seems to me to fill a want in their diet at a season of the year when their natural greenfood. seeding grass, etc., is not procurable.

A noticeable effect on my Budgerigars, after having lettuce for a short period, is that they seem much more vigorous, tighter in feather, and are now "dancing fit."

Not having read of lettuce being given to *Melopsittacus undulatus*, and having given same from an experimental point of view, I thought it might interest aviculturists who keep these popular birds.

Better still, I should like the opinion of other members on lettuce as a food for Budgerigars.

Perhaps our Editor's opinion will be more valued than that of a very raw amateur.

West Hartlepool, March 14, 1922. W.. R. BEARBY.

[French or frame lettuce is not a new food for Budgerigars. Both in the press and practice it was advocated and used in pre-war times—but it was costly during the war and fairly so since the armistice, so it has fallen into disuse a little. One word of warning concerning it we would repeat, viz: that unless the leaves are very young the central fleshy stem should be removed from each leaf, as budgerigars have died from eating same. Also that *some* individuals refuse it. Further, the Editor has been giving his budgerigars seeding and flowering grass the whole of this year. as practically throughout the year some tufts are to be found containing a few seed and flower heads. and, if dug up with a little soil, and kept in a room, from which frost is excluded, for twenty-four hours it is then quite safe to supply to the birds, whatever the weather may be outside.—Ed.]

"FRENCH MOULT" WITH BUDGERIGARS AND PARRAKEETS.

Sir,—Mon. Merel's theory in regard to French moult not being due to in-breeding; would seem to be supported by the fact that it often occurs in young wild-caught Hooded Parrakeets, and more rarely in the case of other species.

At present I have a young imported Yellow-bellied Parrakeet who is, I fear, going to develop into a case of the complaint. He arrived with full wings and tail, but has now moulted all his primaries and long tail-feathers, and shows no sign of renewing them, while he has also ceased producing new body feathers. He remains bright and active and feeds well.

Strange to say, unknown among wild birds, Red-rump Parrakeets have been temporarily almost wiped out in certain districts of Australia by a perfect epidemic of "French moult," an observer stating that he found the birds running about the ground "like mice," perfectly well, but unable to fly.

Havant, March 16, 1922. (The Marquis of) TAVISTOCK.

Sir,—I was very much interested in your article on Budgerigars in the last issue of Bird Notes; especially in what you say about inbreeding. I wonder if it would make any difference if the birds are kept in a large wilderness aviary, almost as if they were at liberty. I believe it is the rule with wild birds for brothers to mate with sisters; and this must have gone on for many generations; and yet the wild bird does not seem to get weaker in constitution. I have a fairly large aviary of canaries, out of doors. I put out two pairs in it in 1912; now there are about fifty; I have never introduced any fresh blood, and yet every year the young seem as healthy as ever. Now they build nests as good as any wild linnet, and are as vigorous and strong as any wild bird about the garden. There is not the least deterioration even though many of them are crested. In cages one knows that inbreeding must be avoided, especially with crested birds, but it does not appear to make any difference in a large aviary. I am wondering if Budgerigars were kept in a large aviary if in-breeding would be as injurious as it appears to be

Sturminster Newton, March 16, 1922. R. E. P. GORRINGE.

[My opinion is (I am open to correction) that it is the exception and not the rule for brother and sister to mate together in a state of liberty; their general habits almost preclude this.

Most, if not all, the *Psittacidae* pair for life in their wild state, but with many other Families this is not the case, and many have a fresh mate every season.

I have made many experiments in the past with Budgerigars and some passerine species, and have found that *never of their own choice will brother and sister mate;* and, from the basis of that experience- I doubt if Mr. Gorringe's canaries so mated.

Put two pairs of the same species into an aviary, ring the progeny of the respective pairs with different coloured rings, and, I think (writing from the results of my own experiments), it will be found that only under compulsion do brother and sister mate.

Again and again it has turned out that when a single pair of Zebra Finches (*Taeniopygia castonotis*) is put into an aviary, all their progeny retained, but no new stock introduced, that in a comparatively few years every Zebra Finch will have died out.

My experience teaches me that regulated judicious in-breeding improves stock, but that, unregulated promiscous in-breeding has the reserve effect. I shall, however, welcome the experience of other members.—W. T. Page.]

MY BLACK-CAP LORIES (*LORIUS LORY*).

Sir,—As I see you put a note in November Bird Notes about my Black-caps' eggs, I may say she sat well as usual, but I believe the egg got chilled owing to workmen in the aviary disturbing the hen; anyway, the egg failed to hatch though it contained a perfectly formed chick. Thus during 1921 this pair of birds laid four eggs, two of which got broken, one contained a dead chick as above, and one hatched out, and the young bird is now seven months old. The hen is now very busy carrying every splinter of wood she can find into the nest, and evidently is about to lay again.

Their seven months' old baby is a lovely strong bird, perfectly feathered, but does not yet possess the brilliant red plumage of his parents. He can talk, and allows himself to be handled without fear; mimics everything he hears, and certainly promises to be as gifted a bird as his parents. He is not yet full grown and is not quite so bulky as his parents. He is not only a gifted, but a beautiful and interesting youngster.

Bristol, February 20, 1922. (Mrs.) MARGARET BURGESS, F.Z.S.

P.S.—I should like to add that I quite agree with Mrs. Read's letter about visiting other members' aviaries. I am only too pleased to show mine any time, by appointment. I think such visits and birdly talks most interesting to all bird-lovers.—M.B.

THE WAXWING (*AMPELIS GARRULUS*).

SIR.—In reply to Capt. Reeve's question *re* Waxwings: I kept several before the war, and had hopes of breeding them; these, however, were frustrated by some interfering Zebra Finches, and though I caught them up, the Waxwings lost interest and made no further effort.

They are, in my opinion, delightful aviary birds, always sleek, spick and span, harmless to the smallest Waxbill, absolutely indifferent to weather vicissitudes, and very handsome. They are confiding birds, and very affectionate to each other; they keep up a continual soft trilling twitter not loud enough to become annoying.

Their only faults are greediness and a disposition to lethargy, which lead to over-fatness and ultimately to fits, but if care be taken of them and they are not allowed too many mealworms, they live well in a fair-sized garden aviary. My birds had a soft-bill mixture enriched with grocers' currants soaked and cut in half, two or three mealworms, and in the summer, live ants' eggs, of which they were very fond.

Mr. St. Quintin very nearly succeeded in breeding Waxwings, and wrote an account of them in one of the early volumes of *The Avicultural Magazine*.

Lyndhurst, March 23rd, 1922. (Miss) E. F. CHAWNER

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Editorial.

NESTING NOTES: The Marquis of Tavistock informs us.

" I have an early Ring-neck Parrakeets' nest at liberty. The hen is " a rather poor-coloured lutino. The cock unfortunately seems to have " some skin parasite on the face, as he has bare areas which he rubs a good " deal. Probably he had the disease when he came, as I only bought " him in October as a freshly imported bird. They *may* rear healthy " young, but, I fear, the probability is against it."

The Lady Dunleath, writing on March 8th, informs us that the three young canaries hatched out of doors (*vide* February BIRD NOTES, page 26) are well feathered and doing well. A later note (March 20) states that all three young birds are on the wing and flying strongly.

RARE BIRDS: Mrs. Burgess informs us that she has lately acquired a true pair of Purple-breasted Lories (*Lorius hypocnochrous*), which she believes to be new to aviculture, and we think that such is the case. She has also received one (or more) Yellow-streaked Lory (*Chalcopsittacus scintillatus*), which she also thinks is new to aviculture, but this is not so, as the London Zoo and private aviculturists possessed this species in pre-war times, and it has appeared on the show-bench on several occasions, but it has never been numerous on the market. It is a beautiful species, and a monochrome figure of it appeared in BIRD NOTES 1909, page 271, in connection with notes on the L.C.B.A. Show, when this species made its second bow to the public.

ZOO NOTES: The additions during January numbered 82, of which we note the following species:

2 Australian Flowerpeckers (*Dicaeum hirundenacaeum*).
1 Magnificent Bird of Paradise (*Diphyllodes hunsteni*).
12 Lilac-crowned Fruit-Pigeons (*Ptilopus coronulatus*).
2 Orange-bellied Fruit-Pigeons (*P. iozonus*).
3 Magnificent Fruit-Pigeons (*Megaloprepia magnifica*).
2 Nutmeg Fruit-Pigeons (*Myristicivora bicolor*)
16 Bar-shouldered Doves (*Geopelia humeralis*).
11 Australian Green-winged Doves (*Chaleophaps chrysochlora*).
1 Nicobar Pigeon (*Caloenas nicobarica*).
*11 Plumbeous Quails (*Synaecus plumbeus*).
1 Australian Rail (*Hypotaenidia brachypus*).

* *New to the Collection.*

All the above are on deposit. Of the permanent additions we note but two species:

1 pair Ross's Snow Geese (*Chen rossi*).
1 Earl's Weka Rail (*Ocydromus earli*).

The additions during February numbered 93. These include 73 Indian species placed on deposit, consisting of:

3 Dial Birds (*Copsychus saularis*).
37 Dwarf Turtle Doves (*Onopelia humilis*).
11 Tigrine Turtle Doves (*Spilopelia tigrina*).
2 Collared Turtle Doves (*Turtur farrago*).
16 Indian Palm Doves (*Stegmatopelia cambayensis*).
4 Demoiselle Cranes (*Anthropoides virgo*).

Among the purchases and gifts are the following interesting species, but nothing *new to the collection*:

2 Layard's Bulbuls (*Pyenonotus layardi*).
1 Yellow Hangnest (*Cassicus persicus*).

Photo by W. Shore Baily.

Hen Cabot's Tragopan incubating.

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BIRD NOTES:

— THE —

JOURNAL OF THE FOREIGN BIRD CLUB.

Tragopans.

By W. Shore Baily.

photo W. Shore Baily.
Young Cabot's Tragopan.
(One month old).

Of these handsome birds there appear to be five species, three of which inhabit India, and the others China.

The most freely imported and at the same time the most beautiful is the Crimson Tragopan (*Tragopan satyra*). The male is a magnificent creature; its general body colour being crimson, covered with large white spots. In the breeding season it has an extraordinary display, developing at this time a pair of greenish-blue horns about two inches long, and a brilliant blue gular flap, about the size of the palm of a man's hand. The first time I saw this display the bird was in a thick hedge, and all I could see at first was a blue patch, which shone like an electric lamp. I have many times since seen the bird displaying in the open, and a truly wonderful sight it is. The display is often accompanied by the bird's crow or call, a very loud and harsh note, and entirely unlike that of any of the other pheasants.

Unfortunately I have never been able to get a photo of the Satyra's frontal display, although I am able to send one of it when showing off sideways as it were without the inflation of the gular flap and horns.

These birds are very hardy and make capital aviary birds, but they require good-sized aviaries, so it is not every aviculturist who can keep them. The hen lays four or five buff eggs about the size of a pullet's. These are sometimes marked with a zone of salmon-coloured spots at the larger end. The chicks are pretty little things and are born with their flight feathers fully developed, so they can more or less fly a day or so after leaving the egg. I have not found them very difficult to rear, provided a good supply of insect food can be supplied. They grow fairly rapidly, although not nearly so fast as young *Crossoptilons*, whose growth is simply phenomenal, but the young males do not attain their full plumage their first season, as is the case with most of the other pheasants.

Another very handsome Tragopan is Cabot's (*Tragopan caboti*). This bird comes from S.E. China, and is not so freely imported as *T. satyra*. It is buff instead of crimson, the spots also being buff. The hens and immature birds are very like those of *T. satyra*, and might easily be mistaken for them. The eggs, three or four in number, are smaller than the Crimson Tragopan's, and are buff, lightly speckled with pink.

Writing of the Crimson Tragopan, Mr. Hume gives the following excellent account: –

> "In the summer they are to be found at elevation of from 8,000 to "10,000 feet, always in thick cover, by preference in patches of the slender "reed-like ringal bamboo in the neighbourhood of water. Although always "on hills near to, or bordering on the snow, they are never seen amongst "it (except perhaps in winter), and seem to shun it as much as the Blood "Pheasant delights in it. Even the Mounal will be seen high above the "forest, well up on grassy slopes fringed with and dotted about with "patches of snow. But the Tragopan is essentially a forest bird, rarely, "if ever, wandering up towards the snow, or into the open, and, although "frequenting perhaps rather their outskirts than their deeper recesses,

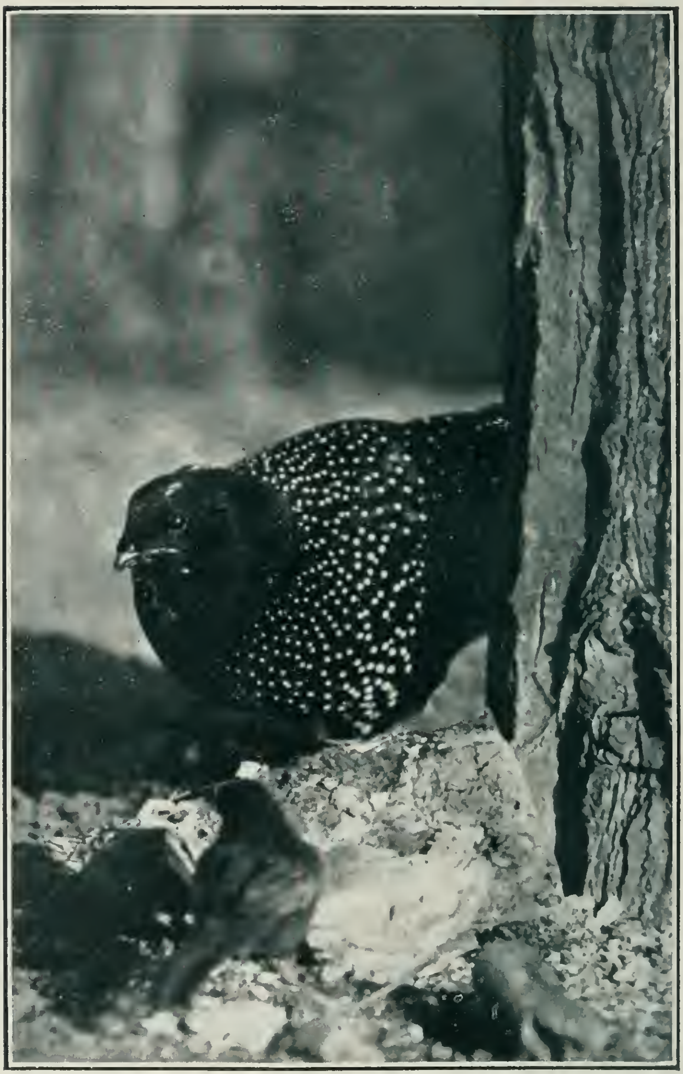

Photo by W. Shore Baily

Crimson Tragopan. (♂).

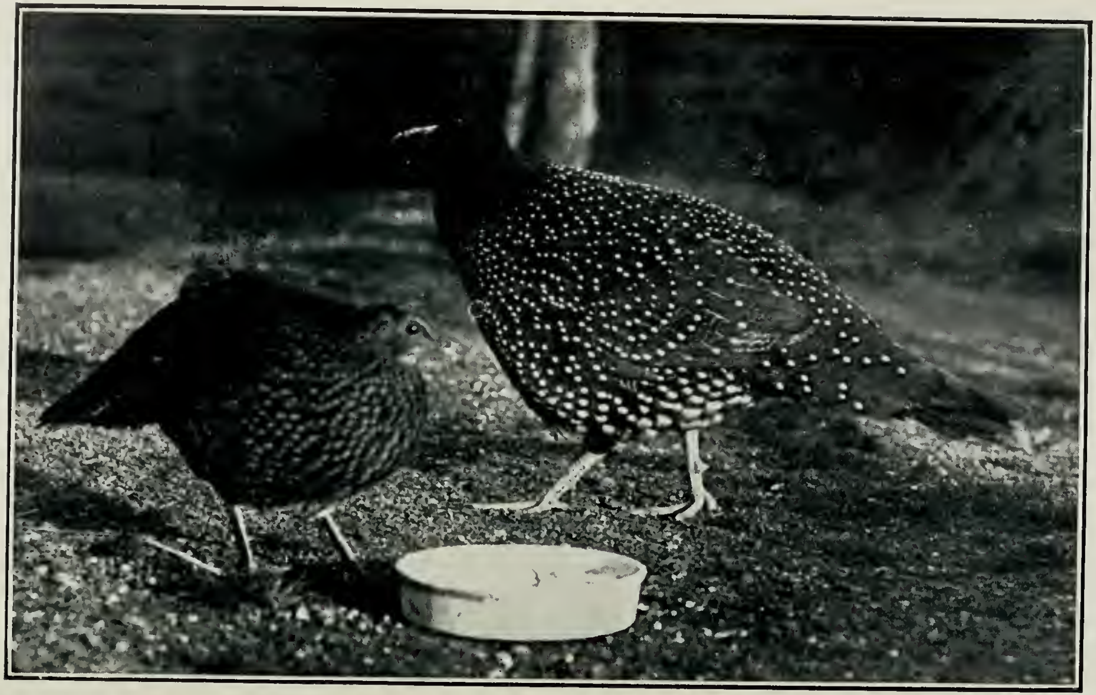

Photo by W. Shore Baily.

Crimson Tragopan.

" hardly ever voluntarily quits the shelter of the woods and their dense " undergrowth."

" Except by chance, when you may come upon a male sunning " himself or preening his feathers on some projecting rock or bare trunk " of a fallen tree, these birds are never to be seen, unless by aid of three " or four good dogs, who will speedily rouse them up, or of a trained " shikari, who will call them out by cleverly imitating their loud bleating " cry. If you ever catch a glimpse of them it is but for a second; they " drop like stones from their perch, and dart away with incredible swiftness, " always running, never, so far as I have seen, rising unless you accidentally " almost walk on to them, or have dogs with you. To judge from those " I have examined, they feed much on insects, young green shoots of " bamboos, and on some onion-like bulbs, but Mr. Hodgson notes that " those he examined had fed on wild fruits, rhododendron seeds, and in " some cases entirely on aromatic leaves, bastard cinnamon, daphne, etc.

" At the end of April, and very likely earlier, the males are heard " continually calling. When one is heard calling in any moderate-sized " patch of Jungle, you make for the nearest adjoining cover, and work " your way sufficiently near to the outside to get a view of the intervening " space. Then you squat, and your man begins calling. Very soon he " is answered, too often by some wretch of a bird behind you, who persists " in ferreting you out, gets scent of you, and goes off with a series of " alarm notes that frightens every other bird within a mile. But if you " are in luck and all goes well, the right bird and the right bird only answers, " and answers nearer and nearer, till just as your dusky comrade, forgetting " in his excitement his wonted respect, pinches your leg, you see a head " emerge for a second from the bases of the ringal stems opposite; again " and again the head comes out with more and more of the neck turned " rapidly right and left, and then out darts the would-be combatant towards " you; the gun goes off, everything is hidden for a moment in the smoke, " hanging on the damp morning air, and then—well there is no trace of " the Tragopan. I protest that this is an exact account of the only good " chance I ever had at one of these birds on the calling lay."

Shama, the Best Song-bird.

By J. W. Porter.

Nothing influences me so much in nature as her music, the singing of her birds. The Nightingale has through the ages been lauded both in prose and poem, and rightly so, for in a state of freedom the music of this glorious bird stands out much as does the first violin in an orchestra or the soloist in some choir of human voices. People may claim that this distinction is gained mainly by reason of its song being poured out in the stillness of the night when all other bird music is hushed, and they claim that if the Skylark and Blackcap possessed this habit they too would be similarly praised. To these people I would say, go and listen to the Persian Nightingale. This bird sings a great deal more than our Western bird by day and possesses a much more powerful song if slightly less sweet voice; but the song is almost identical. To hear this bird's beautiful notes ringing clear and resonant above all the other sounds of wild life impresses one to such an extent that he is not likely to listen to, and much less to be influenced by the claims made for other bird music with which he is familiar. A far more simple test is to keep a Nightingale, Skylark and Blackcap and judge from the exhibition in one's own bird-room; here again the Nightingale's excellence is very evident, even though no captive Western Nightingale ever sings in captivity as he does in freedom. He is a bird of the wild and not of the cage.

It is hard for me to appreciate when, considering the number of people who keep captive birds, the large sums which pass yearly through the bird dealers' hands, the enormous variety of birds imported from all parts of the earth, and of the time and trouble expended by their keepers, why it is that this greatest possession of our pets—a gift possessed only by birds and humans—is so little considered. The working-man fancier with his caged Thrush, Skylark or Linnet is the true bird-lover, for he keeps a bird, as did the people of the East centuries before these Western countries were inhabited, for the pleasure it gives him of listening to its song, and not for its grotesqueness and garish plumage. We see in the canary the trend of this habit. This bird was originally bred for song and kept for song only, even though some people may perhaps have been attracted by its colour, and even this colour did not satisfy, as witness the production of the colour-fed birds—a pernicious fancy and deterrent to health. Vanished is the little " London Fancy canary, a bird who could sing, and in his place we have unshapely bodies for show purposes, or machine-rendered songs mechanical and monotonous. Even to-day we have a group of people talking of a canary with nightingale's notes, woodlark's notes, and blackcap's notes, yet these same people might just as well seek for the "Philosopher's Stone." If they only considered a little more deeply and scientifically a subject on which in other directions they will spend hours of thought and labour and money too, they would be well advised, for it is a physical impossibility, just as much impossibility in fact as an attempt to imitate the notes of the violin with a trombone or cornet. To those searching for the perfect songbird in captivity success will never come until they turn their attention to the softbill I am one of the seekers, and though perfection can only come with years of training and selection I am sure that it can be found in the Indian Shama.

If a search were made throughout the world to find in embryo a wonderful human voice which would by training reach the nearest point to perfection the searchers would naturally have to judge entirely by the range of the imperfect voice and the number of notes it could compass naturally and without effort. They would naturally also desire that the temperament of the selected should be a suitable one to undergo the training and change of environment.

A comparison between the song of the Nightingale and the Shama always seems to me to suggest in fact that of a trained and untrained human voice. I have often listened to the Shama singing in its wild state—a kind of low sweet warble, to be broken at intervals with those glorious liquid notes found only in the song of these two birds.

Unfortunately the Shamas brought to this country are seldom good song specimens. They have passed through the hands of the dealers, and in course of transit have learned to imitate the notes of various other birds with which they have been crowded. For instance the twittering of a Budgerigar when once heard by a Shama is never forgotten and will always, sooner or later, be produced. Nearly every Shama which has not been carefully trained and isolated has acquired notes of the various Bulbuls, and these, too, when once learned will always form part of his repertory.

It must be remembered that a Shama hand-reared from the nest and carefully trained to sing from the finger more or less at direction is always a very expensive bird. The price required in India for a really tame and trained singing Shama will often be more than we pay for a bird from a dealer in this country.

This being the case, would it not be possible for those bird lovers here who have breeding aviaries to concentrate on producing and stabilising this bird instead of giving so much thought and time to the breeding and rearing of birds like the Budgerigar? Surely the Shama is a more pleasing production than yellow and blue budgerigars. I appreciate the great difficulty of obtaining hen Shamas; but if a number of people were determined to obtain these birds they could easily enough be got over. It has always appeared to me that there must be a financial reason either here or in India which accounted for the scarcity of the females. It is not a rare bird in India; it acclimatises very quickly and is healthy and easy to keep. With a number of young hand-reared Shamas in this country at first hand with people willing to spend time and patience on their education the whole question as to which is the world's greatest songbird would quickly be answered. I would guarantee that a nestling Shama kept wholly in the company of the most perfect singing Nightingale would in course of time sing that very same song, not for a few brief periods of the year, but for the whole season. What would add greater charm, too, perhaps to the song when rendered in our homes would be the fact that it would be toned down, for the Shama is no " shrill shouter of song." If we wished it, how easily too we might add to such a song say that of the Blackcap, the Woodlark or the Barred Warbler.

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Some Notes of My Birds.

By Margaret Burgess, F.Z.S.

Uvaean Parrakeets (*Nymphicus uvaeensis*): In September 1921 I see I was asked how I fed my Uvaean Parrakeet. It was not a newly imported specimen when it came into my possession. This bird has never ailed with me, and, except at moulting time, is always a picture of glossy plumage and perfect health. It is fed on all kinds of seeds—canary.

hemp (very little), millet, and parrot seed mixture—monkey nuts it simply loves, has bread and milk daily, fruit—apple, grapes are greedily eaten. One day I noticed it scratching among the litter on aviary floor, as do poultry, and I closely watched it and saw it find mealworms, which had crawled in from the adjoining aviary. It now eats as many mealworms as I care to give it, and watches and calls at once on seeing the mealworm-box; the mealworm is sucked completely dry, but the skin is never eaten. I believe it would really live on these insects alone if I would allow it—it gets and eats about twenty daily. Another bird which has a weakness for mealworms is the Rock Pepler Parrakeet (*Polytelis melanura*), of which species I have two specimens, but only one of them takes the mealworms and he eats them greedily, and is just as keen for them as the Uvaean. Possibly this live-food is what the Uvaean needs to keep it in health. Have any of our members used them before for this species? My bird bathes freely.

As regards mealworms; all my Broadtails like them and delight in hunting among the ground litter for them; one of my Hawk-headed Parrots also is fond of them; but this bird holds it in its claws the same as a nut and eats the whole of it. I find lots of Budgerigars like insectile mixture, and I give them a little daily, mixing it with hot water, and they seem to enjoy it especially the young ones.

Satin Bower-bird (*Ptilonorhynchus violaceus*). My specimen is becoming very interesting. I received it in December 1920 when it was quite a young bird in juvenile plumage; some, who saw it, said it was a female. Very slowly, the last few months, it has been changing colour, and now the back is becoming glossy black, and the spots on the breast are running together; the eyes are blue now when light is behind them. I once read it took three years for a young male to reach adult plumage, and judging from my bird this is evidently correct, and I shall note when the change is complete—my bird must now be approaching three years old. He is a most beautiful bird and within the last few months is becoming quite tame; previously it would not even come to the ground while anyone was watching. It is perfectly friendly with the other occupants of the aviary, of which the following is a list:

3 Glossy Starlings

1 Spot-billed Toucanette

1 Hill Mynah
1 Cat Bird (Aust.)
2 Hangnests
1 Canton Mocking-bird
2 Barbets
1 Pileated Jay

Peace did not always reign in this aviary; it used to contain an African Pied Starling, so I sold the offender, and peaceful harmony now reigns supreme.

VASA PARROT (*Coracopsis vasa*), and BARE-EYED COCKATOO (*Cacatua gymnopis*). We are having great fun just now watching the love making of these two birds. The Vasa is a hen, such a sweet silly old thing; I have been told Vasas are dull birds; my bird is certainly not so; she is a great talker, keen flyer, never still, and always in mischief. She is now in perfect plumage, very glossy, with a mealy appearance over her feathers. I call her a handsome bird, a great change and contrast in colour compared with the brilliant greens, etc., of the other parrots. She has a box, which she delights to get the Bare-eye to come down and play with her around it; they have a rag doll which is greatly loved, also the Roseate Cockatoo (*Cacatua roseicapilla*), when allowed, delights to join in the fun. The Vasa says " Come on Paul, do! come on!" Poor Paul gets no peace until the Vasa gets right under his wings, and Paul (the Bare-eye) feeds her. Is it possible, I wonder, for them to really mate?

NESTING NOTES: I believe my Red-collared Lorikeets (*Trichoglossus rubritorques*) have eggs, as the hen appears to be sitting.

Blue and Blue-bred Budgerigars are laying; ditto Zebra Finches (*Taeniopygia castonotis*).

I have paired Rosella Parrakeets (*Platycercus eximius*), but the cock bird is unfaithful and is madly in love with a hen Barnard's (*Barnardius barnardi*), who welcomes his advances; these feed each other. I hardly know what to do, as the Rosella will not look at his mate. [You must either let them follow their own sweet will, or remove the hen Barnard's out of sight and hearing of the Rosella.—ED.]

My Bell Bird (*Manorhina melanophrys*) was dancing and displaying this morning (March 27); it quite put up a crest and bowed, then sharply turned with a quick strike on the one bell-note; I have never seen this done before. It is wonderful how he can continue the sound of the bell-notes, many times in succession, with mouth wide open, and in one breath the sound proceeds from his throat.

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Diary of a Voyage from Karachi to Marseilles, 1920

By Hugh Whistler, F.Z.S.

The following rough account of birds noticed during the course of a sea voyage from India does not lay claim to any scientific or literary pretensions. It has always been my custom while at sea to keep a note of all birds which come under observation, and it occurs to me that possibly some of our members, whom circumstances do not allow to travel, may be interested to get a rough idea of what birds can be seen from the deck of a liner passing along one of the ordinary sea routes.

Where possible I have indicated the position of the ship at noon, and the number of miles travelled in the preceding 24 hours.

May 17th. Embarked on the *City of London* at Kiamari (Karachi) about noon. Hempriche's Gull (*Larus hemprichi*) in full breeding plumage was very common in the harbour. A few Kites (*Milvus govinda*) were also round the ships.

About 4 p.m. a stream of birds, apparently *Phalacrocorax javanicus*, in V's and lines was passing across the harbour

May 18th. 22° 00 × 68° 45′ E. 206 miles. No birds seen, though land was occasionally in sight. It is possible that depth of water rather than distance from land accounts for the presence or absence of birds.

May 19th. Reached Bombay about noon and lay out in the harbour, leaving again about 6 p.m. The most common bird seen was the Kite (*Milvus govinda*). The only Gulls seen were a single bird in full breeding plumage, apparently *Larus brunneicephalus*, and a party of about a dozen seen in the distance which were apparently not in full plumage, and which I could not identify. Two or three Swifts (*Cypselus affinis*) passed the ship.

May 20th. 17° 54′ × 69° 10′ E. 218 miles. A single Tropic bird, probably *Phaëthon indicus*, was flying for some time parallel with the ship. Once it stooped but unsuccessfully at a flying fish exactly after the manner of a Falcon, and later on it fell from a height into the water with a splash like a tern. No land seen.

May 21st. 16° 52′ × 64° 11′ E. 292 miles. Two large brownish looking Shearwaters passed across the bows of the ship before breakfast. These might have been the Green-billed Shearwater (*Puffinus chlororhynchus*). A single Shearwater was seen after sunset.

May 22nd. 15° 42′ N. × 59° 07′ E. 300 miles. A large white bird seen in the distance early was probably a Gannet. A few Shearwaters were seen during the day, and appeared to be mostly small of a uniform brown colour, though one bird had whitish underparts which renders it likely to have been *Puffinus persicus*.

May 23rd. 14° 44′ N. × 54° 18′ E. 285 miles. Two Masked Gannets (*Suta cyanops*) appeared about 7 a.m., and for a time flew just over the forecastle of the ship, keeping close together. The black rectrices and remiges, contrasting with the pure white of the remainder of the plumage, and the livid bill and facial skin were sufficient to identify the birds beyond doubt.

A few Shearwaters of the dusky type were seen throughout the day. About 4 p.m. a distant flock of white birds, probably Terns, were seen busily fishing over a small patch of water.

May 24th. I was somewhat astonished to see a party of two or three small Black Petrels with white about the tail, as it is new to my experience to meet Petrels in the Arabian Sea. From a study of distributions it is probable that they were the Fork-tailed Storm Petrel (*Oceanodroma leucorrhoa*). A few Shearwaters, mostly of the dusky type, but one with whitish underparts were seen throughout the day. It was impossible to identify a couple of Terns which flew past the ship.

May 25th. 12° 25′ N. × 44° 13′ E. 312 miles. We passed Aden about 8 a.m., and Perim about 4 p.m., but put into neither harbour. A few white birds seen in the distance were apparently Terns. Several Hempriche's Sooty Gulls (*Larus hemprichi*) were seen about noon, and at Perim they became numerous, following the ship until dusk; with them was an adult Black-backed Gull, presumably *Larus affinis*. A party of two or three Petrels, of the same species as those seen yesterday, were noted between Aden and Perim. A single Tropic bird (*Phaëthon*) was seen in the distance.

May 26th. 16° 20′ N. × 41° 14′ E. 313 miles. Several Brown Boobies (*Sula leucogaster*) were observed in the early morning while we were in the vicinity of some rocky islands. A single Tern was also noted.

May 27th. A single Tern seen in the far distance was the only bird observed during the day.

May 28th. 25° 05′ N. × 35° 47′ E. 314 miles. A Dove of some species was seen in the vicinity of the Daedalus lighthouse, which is built on a long shoal visible at low water out in the middle of the Red Sea.

May 29th. 29° 21′ N. × 32° 39′ E. 309 miles. No birds were seen during the day with the exception of a single whitish Gull, until we reached Suez about 2 p.m. Here even there was practically no bird life in the harbour, a few Gulls only being seen, and those at a distance. Two species appeared to be represented, Black-backed Gulls and *Larus leucophthalmus*.

May 30th. We reached Portsaid at about 7 a.m., the greater portion of the Canal, which is always of great interest to the naturalist, being traversed by night. There were a few Black-backed Gulls about the harbour, and for a little way outside it. The Common Swallow (*Hirundo rustica*) was seen about 10 a.m.

May 31st. 33° 34′ N. × 27° 03′ E. 300 miles. No observations.

JUNE 1ST. The only sea birds noted during the day were a couple of Herring Gulls, but it was impossible to identify them properly. A Turtle Dove about 10-30 a.m., and a Tree Pipit about 6 p.m. were seen, stragglers on migration.

JUNE 2ND. 38° 11′ N. × 15° 36′ E. 316 miles. A most interesting day, for we entered the Straits of Messina about 11 a.m., and passed Stromboli about 3-30 p.m. In the Straits the land lay so close on either side, and was so clear in the bright sunshine that with field glasses one could see the towns and countryside most clearly, and even trace remains of the great disaster of a few years back. Stromboli was smoking, and one wondered at the courage of the inhabitants of the small villages which perch in precarious position on the small buttresses of land which jut out at the base of the giant cone which rises straight out of the sea. A few Shearwaters and many adult Herring Gulls appeared about the neighbourhood of the land, but the only migrant seen was a small bird which appeared to be one of the Yellow Buntings.

JUNE 3RD. We approached Sardinia about noon, when Herring Gulls were following in the wake of the ship. In the Straits of Bonifacio there were some species of Shearwater with brown upper parts and a white undersurface. A House Martin (*Chelidon urbica*) visited the ship in the evening.

JUNE 4TH. The *City of London* reached Marseilles in the early morning, and I abandoned the study of birds in favour of the desperate rush which is the lot of those who would essay the overland route!

◆

Notes on Jungle and other Wild Life.

BY DR. CASEY A. WOOD, M.B.O.U.

[The following was forwarded to me, accompnaied by a short letter, as follows: "Dr. Casey Wood, now in South America, has asked me to send "you the enclosed copy of a letter which he has written for a few relatives

" and personal friends, and which there has been no opportunity to revise cr " correct. Please do not return it, but dispose of it in any way you choose.— " Cora Raymond (Secretary)." We have decided to publish it *in extenso* as received, as while the whole of it does not refer to birds, yet it is all descriptive of wild-life in all the varied faunas of the tropical jungle, how to reach, transit details, etc., and will, we opine, prove of practical interest to all serious aviculturists, and will impart some insight as to the natural setting of many of the species which adorn our aviaries.—Ed. B.N.]

Dear Folks,—

Last year, when E. and I spent the winter on the mainland of South America, I wrote a short and unconnected account of our experiences, for the amusement of a few friends. These random sketches were intended to be a sort of Christmas greeting, and were indeed ready for the typist before the holiday season, but it takes so much time to reach one's correspondents from the Tropics that it was almost Easter before the letters were delivered

I suppose this is the proper place to confess that E. and the writer hope to complete their itinerary, which has so far been something like this—California, Chicago, Montreal, New York, London, Montreal, Halifax, Barbados, and Demerara, during 1921—by adding Trinidad, Venezuela, Curacoa, Haiti, New York and Washington, London, Montreal, and Chicago, finally reaching California some time towards the end of 1922. Sounds like a circus route or a Cook's Tour—doesn't it?—but it is really much simpler and more commonplace than either!

If I had not been asked so frequently my motives for visiting once more the Spanish Main, I would not now bore you with them. (By the way, I did not know until I had read, quite recently, Lord F. Hamilton's attractive book, *Here, There and Everywhere*, that " Main " has nothing to do with a body of water, but is an abbreviation of " Mainland," meaning thereby the former possessions of the Spaniards in South America).

Imprimis, I am desirous some time in the future to complete certain work I have been carrying on about the Eyes and Eyesight of Birds. After all, if we wish to study eyesight in its numerous manifestations (human vision included) or hope to penetrate the mystery of how we see, it is to bird life that we must apply. That I may intelligently continue these studies it is vitally important that I know something of Ornithology in general, and of the related departments of Natural History—no mean task. Of course, only those who have been fortunate enough to have given a whole lifetime to such pursuits ever *really* become accomplished zoologists; but the half-loaf is better than none. On the other hand, I have always liked, and to some extent dabbled in, the natural sciences; and with this slight foundation for more extensive studies trust that during a diligent pursuit for, say, five or six years, of ornithology in its literary and other aspects I may pick up sufficient information to justify a review, by no means final, of that highly specialised sense, avian vision, and perhaps acquire a working knowledge of the apparatus that apparently brings it about in a few of the fifteen thousand species that now populate the bird world. As a result of these inquiries, I may add one or two facts to those already accepted. Then, later, other and better equipped observers will furnish their quota, so that we may know at last something about a subject of which at the present writing little is really known. Furthermore, an increase of our knowledge of eyesight in bird families will with certainty help to an understanding of the same function in Man.

So, that's that; but there are other reasons why we consider the Tropics no mean place in which to spend the winter, among them the fact there are available so many British Colonial possessions, with their charming circles of well-read, highly educated and widely travelled officials. For example, during the very first week of our two months' residence in Barbados, the U.S. Consul, Major J. J. C. Watson, went out of his official way to arrange a luncheon at the Bridgetown Club that I might meet those zoologists of the Island who would most likely be of use to me in my bird investigations and, about the same time, E and I were " put up " at the two principal clubs. So we were able to see not a little of the charming social life of the colony.

Although we, as Americans without official status, had some hesitation about writing our names in the visitors' book at Government House, and did not, as a matter of fact, observe that or the other convention of a first call, yet in spite of what some people might regard as a " gaucherie," were invited there, to several informal functions, and had a chance of becoming acquainted with a number of delightful people. The Governor and his very popular wife long ago adopted the thoughtful custom of inviting to their family Christmas dinner all those homeless unfortunates who, like ouselves, "had nowhere to go." Our host very appropriately called us his "Waifs and Strays." And we had a mighty good time—we castaways. After dinner we joined in the children's games, danced the Lancers, had a final round of blind-man's-buff, and topped off with something E. and I had not taken part in for years—Sir Roger de Coverley! It would have made you feel young again if you could have watched the dignitaries of Church and State playing "hunt the slipper."

I am well aware that for these privileges I was indebted to no merit of mine, but only to the innate kindliness of Sir Charles and Lady O'Brien. Possibly, also, an old-time friend between Lady O'Brien's sister and my wife had something to do with it. At any rate, Sir Charles O'Brien, who is one of a long line of Colonial Governors and Empire builders, not only makes, so every Barbadian tells me, an ideal administrator, but is in all other respects very much of a gentleman—and what more remains to be said? E. and I will not soon forget Barbados and her hospitable people.

Moreover, we do not seem apprehensive of those more or less mythical dangers popularly attributed to tropical *jungle* life. In virtue of that state of mind we intend to brave (?) these dangers and discomforts. First of all, we expect to make an excursion fifty miles up the Essequibo River to a place surrounded by the illimitable Guiana forest, where we shall be exposed to about the same troubles and accidents that accompany a foray into the wilds of Maine or Michigan, and that ends in a stay in some summer hotel on the shores of an inland lake. Certainly, there are more sand-flies and mosquitos in the last-named locality than on the banks of the Mazuruni; and more snakes; and fewer birds and just as many flowers. Then there is Kaietur Falls, but as these are accessible only to such women as Mrs. Theodore Roosevelt, Mrs. Lestrade and Mrs. Clementi. but that's anticipating a part of this narrative!

The visit of a feathered straggler to a ship at sea is such a common experience that it is hardly worth mentioning were it not for the questions of bird psychology that such incidents often involve. On our way from Halifax to Bermuda and when some four hundred miles from the nearest land, a Logger-head Shrike flew on board. Accompanying us, from the Nova Scotian coast, were two acceptable forms of Butcher Bird food—a couple of English Sparrows and several crates of cabbages (with their usual families of cabbage-worms) securely roped to uprights on the forward deck. The Shrike (what a beautifully set-up and fearless brigand was he!) first dined off the sparrows and then, after a day or two, gave his attention to the cabbages. He must have improved the vegetables greatly, and I could not resist the temptation to advise the consignee at Port Hamilton that he should advertise arrival of a special lot of "bird-picked" vegetables.

The Shrike remained with us for several days. It seemed to some of us that he stayed until the cabbage grubs were exhausted, and then, despising the dangers—if there were any for him—of the waste of waters, flew away. My friend, Dr. Chas. Richmond, of Washington, a widely known authority on the subject, believes that birds have no conception of a moving ship as such, but regard it as part of the land; and he writes me that probably this Lanius acted just as any accidental visitor would on any isolated rock in the Atlantic, and was not bothered to ask why the food supply was sufficient when on other islets he had found it exceedingly scarce.

Another bird especially attracted by ships is known to sailors as the Boatswain Bird. We were fortunate in having one with us on this trip—appropriately introduced to me by the functionary whose name he bore. The Tropic Bird—to give him his correct designation—has the two middle feathers of his tail so arranged (and projecting) that they are said to resemble a marline-spike, and so to suggest the officer just mentioned. The very beautiful individual that came aboard the *Chaudiere* was *Phaethon* (because his whole life is spent in following the chariot of the sun!)*Americanus*. At least that was his name the last time I looked him up; and we have frequent re-christenings in systematic ornithology. He had webbed feet, some black markings on the face and wings, but his general colouring was a lovely satiny white. After he had been duly admired and allowed to rest awhile, he returned to his favourite task of attending the horses of the sun-God.

In the harbour at Grenada we saw, quite close at hand, numerous Frigate or Man-of-War birds (*Fregata aquila*). Farther north we had observed individuals flying high in the air, but at St. George's there was ample opportunity to study these magnificent birds at close range, for they often flew quite close to our steamer. The Frigate Bird is found near the equator all over the globe, and both sexes have the same colouration above--a chocolate brown with a metallic sheen that appears shiny black to the distant observer. The female has white beneath, and her outstretched legs are plainly pink, while her mate's are black. The body is relatively small, while the wings, as large and widespread as a swan's, give the bird great buoyancy. I do not know why, but these birds—especially the apparently coal-black male—remind me of a figure of Satan, a detail of an engraving by Gustave Doré that, in my boyhood, hung (a cheerful adornment) in my bedroom. This fearsome object was placed there by my much-tried Calvanist nurse—whose patient soul now rests with the Elect, I trust. She expressed the justifiable opinion that " boys like you " require for their eternal welfare not only physical but mental influences to keep them in the straight and narrow. Hence, the warning portrait. It is one of the regrets of my career that Nurse's faithful works should have proved so disappointing and that in time, I came to look upon the Mephistopheles on the wall as a kind of guardian angel. Be that as it may, the moment I saw the great glistening, double-triangle pinions of the Frigate Bird I instantly visualized my old friend the Devil! And yet, as Newton says, it is a beautiful sight to watch one or more of them floating overhead against the deep blue sky, the long forked tail alternately opening and shutting like a pair of scissors, and the head, kept to windward, inclined from side to side. The wings seem to be fixed in one position in all directions of the wind.

The Man-of-War Bird exhibits some wonderful diving and hunting stunts when, from on high, he fishes in the sea beneath him or chases other birds to rob them of their prey.

Altogether he is one of the most remarkable objects to be seen about the Antilles.

Later, when we reached the South American Mainland, we made the acquaintance of another bird fit to be mentioned with these majestic aves, viz:—the Swallow-tailed Kite (*Elanoides furcatus*). This feathered beauty, noted because of its length of tail and wing, has a black body but a white head and neck, the outstretched wings showing from below a broad, paper-white band extending almost from one wing-tip, across the body, to a corresponding area on the opposite side.

These markings, with the long, bifurcated tail, make a splendid appearance as the bird goes sailing and soaring through the blue.

(*To be continued*).

Zoo Report.

Zoo Notes: We have noted from time to time most of the birds given in the following lists, taken from the annual Report of the Zoological Society of London for 1921, but we are of the opinion that a complete list will be of interest to many readers.

BIRDS BRED DURING 1921.

June	21.	2 American Robins (*Turdus migratorius*), reared.
June	29.	3 Bluebirds (*Sialia sialis*), reared.
July	19.	3 Zebra Finches (*Tæniopygia castanotis*), reared.
Sept.	9.	1 Blue Grosbeak (*Guiraca cærulea*), reared.
July	13.	2 Gambel's Sparrows (*Zonotrichia leucophrys gambeli*), reared.
Sept.	11.	2 Leadbeater's Cockatoos (*Cacatua leadbeateri*), reared.
Sept.	11.	1 Cockatiel (*Calopsittacus novæ-hollandiæ*), reared.
Oct.	18.	1 Cockatiel (*Calopsittacus novæ-hollandiæ*), reared.
July	18.	4 Budgerigars (*Melopsittacus undulatus*), reared.
June	16.	2 Sacred Ibises (*Ibis æthiopica*), reared.
Oct.	8.	1 Sacred Ibis (*Ibis æthiopica*), not reared.

June 22. 9 Mallard Ducks (*Anas boscas*), reared.
July 10. 4 Carolina Ducks (*Lampronessa sponsa*), two reared.
June 27. 2 Southern Triangular-spotted Pigeons (*Columba phæonota*), reared.
June 28. 1 Dwarf Turtle Dove (*Onopelia humilis*), reared.
July 13. 2 Dwarf Turtle Doves (*Onopelia humilis*), reared.
Oct. 25. 1 Geoffroy's Dove (*Peristera geoffroii*), reared.
June 1. 1 Brush Bronze-winged Pigeon (*Phaps elegans*), reared.
June 21. 1 Brush Bronze-winged Pigeon (*Phaps elegans*), reared.
June 2. 1 Crested Pigeon (*Ocyphaps lophotes*) ,reared.
June 2. 2 Talpacoti Doves (*Chamæpelia talpacoti*), reared.
July 13. 4 Gambel's Quails (*Lophortyx gambeli*), one reared
June 16. 3 Himalayan Monauls (*Lophophorus impeyanus*), not reared.
June 16. 13 Gold Pheasants (*Chrysolophus pictus*), six reared.
June 16. 3 Silver Pheasants (*Gennæus nycthemerus*), reared.
July 23. 2 Hybrid Reeves's and Silver Pheasants (*Syrmaticus reevesi* × *Gennæus nycthemerus*), reared.
July 23. 4 Hybrid Lineated Kaleege and Silver Pheasants (*Gennæus lineatus* × *G. nycthemerus*), reared.
July 23. 2 North American Turkeys (*Meleagris americana*), one reared.
Aug. 16. 3 Burmese Peafowl (*Pavo muticus*), reared.
May 6. 1 White-necked Crane (*Pseudogeranus leucauchen*) not reared.

SPECIES new to the COLLECTION exhibited during 1921.

Spizixus canifrons Blyth. Finch-billed Bulbul.
Hab. Yunnan.

Cinnyris gutturalis Linn. Scarlet-breasted Sunbird.
Hab. Durban, S. Africa.

Steganura paradisea verreauxi Cass. Eastern Paradise Whydah-bird.
Hab. Mombasa.

Serinus scotops Sundev. Sundevall's Seed-eater.
Hab. S. Africa.

Spreo bicolor Gmelin. Pied Starling.
Hab. S. Africa.

Pholidauges leucogaster verreauxi Bocage. Verreaux's Amethyst Starling.
Hab. Durban, S. Africa.

Poliopsar nemoricolus Jerd. White-winged Mynah.
Hab. Yunnan.

Cyanocorax cæruleus Vieill. Azure Jay.
Hab. S. Brazil.

Colius affinis Shelley. East African Coly.
Hab. Mombasa.

Sauromarptis tyro Gray. Aru Island Kingfisher.
Hab. Aru Island.

Coracias caudatus Linn. Long-tailed Roller.
Hab. S. Africa.

Aprosmictus amboinensis Linn. Amboina King Parrakeet.
Hab. Amboina.

Astur leucosomus Sharpe. Lesser White Goshawk.
Hab. Aru Island.

Ptilopus aurantiifrons Gray. Orange-fronted Fruit Pigeon.
Hab. Aru Island.

Megaloprepia magnifica Temm. Magnificent Fruit Pigeon.
Hab. S.E. New Guinea.

Chalcophaps stephani Reichenb. Stephani's Green-winged Pigeon.
Hab. New Guinea.

Mitua salvini Reinh. Salvin's Razor-billed Curassow.
Hab. Ecuador.

Talegallus fuscirostris Salvad. Brown-billed Brush Turkey.
Hab. Aru Island.

Eulabeornis castaneiventris Gould. Red-bellied Rail.
Hab. Aru Island.

Correspondence.

MILLET SEED SAMPLES.

Sir,—I am about to make a confession of deplorable ignorance after over forty years of aviculture. I have been starving to death, and nearly to death, some dear little foreign finches I have had over *twelve* years! I could not get Indian millet locally, so always sent to London for it, until quite lately, when I found it was (seemingly) obtainable. I used it, just noticing it was slightly larger and brighter than the ordinary, so apparently a better quality. After a time I remarked the birds seemed dull and mopish, so unlike their usual cheery little selves, especially in the spring time; they would sit huddled together as one sees them in dealers' shops, neither singing, nor bathing, nor interesting themselves in the sod of flowering grass with which they are always supplied. Too late I discovered this Indian millet (?) though scattered about, was never eaten—not a grain of it—and the little things had been subsisting on white millet, and only a scanty supply of that, for they cared little about it in ordinary times. There was always a supply of canary seed for other birds, but that I knew they never touched. On discovering what was amiss I at once gave the real thing, of which there happened to be a little in the travelling cage of some new arrivals, until I could get some down from town, and the survivors happily recovered. The question to me is what was that fatal seed? It was not "Brown Millet," for I know brown millet. This query may be a display of ignorance, but it may possibly act as a warning to other aviculturists of less ancient date than myself. I enclose samples of the seed.

Bishops Lydeard; April 17, 1922. (Mrs.) E. A. H. HARTLEY.

[One sample was the seed usually sold as Indian millet, but imperfectly cleaned; the other was a good sample of yellow millet, a variety which few foreign birds will eat, or only take a little under the stress of hunger—it usually appears in fair quantity in young chicken mixtures, and would, we opine be quite wholesome providing the birds could be induced to eat it freely.—Ed.]

STRAY NOTES ON BIRDS AND MICE.

Sir,—A few notes may be useful of "B.N.," though, I fear, there is little that is new or of particular interest to record.

Last winter 1920-1, as an experiment I allowed the hundred birds in my mixed aviary to have the use of the outside flight the entire winter, and casualties were few. I dread to think what would have happened under the same arrangement this winter—In the stone-walled enclosed aviary (15ft. x 15ft. x 15ft.) I have had fewer losses than ever before. The Lavender Finches, Blue-breasted Waxbills and similar species have come through in fine form, and are now in breeding condition.

The cock Indigo Bunting changes into his azure breeding plumage in March each year; the hen, I am sorry to say, died recently after spending seven years in the aviary, and I would much like another.

The Cape Canaries (*Serinus canicollis*) are wonderful songsters, and, under the tuition of a particularly good goldfinch mule, last season's young males sing better than the adults.

This is the first season I have had a cock Bullfinch piping in the aviary other than the call notes.

Mice: The walls of the enclosed aviary have large bunches of bracken hanging on them, together with nest boxes as winter quarters for the birds, and at this time of year I see little of them—We are, of course, continually killing odd mice that we see in the place, but lately it seemed to me that the mousey order was particularly strong, so it was decided to shake out the bracken—eighty-three mice, old and young, were bagged in the process! We thought that must be the end of them, but the other day I saw a mouse put its head out of the hole of a nest-box about 10ins. high by 6ins. wide and deep; we plugged up the hole and plunged the box into a water tank; the contents drowned were: 34 young mice of all ages, 4 adult females, and 2 adult males. I must be excused for giving all this apparently simple detail, but I was very interested, as I did not know that mice were gregarious to that extent, and would be pleased by information.

I can hear you say, "What an awful waste of seed," and I assure you I think so too.

H. CARR-WALKER.

COMPILING A LIST OF FOREIGN BIRDS BRED AT LIBERTY.

Sir,—I should be very pleased to try and compile a list of foreign species which have been bred at liberty in this country, if members would kindly assist me by sending information as to species, locality and owner.

I only want to include instances where both parents have been full-winged, and the young have been reared to be independent.

Does one of our members possess any record of the parrots, etc., bred at liberty at Northrepps?

(The Marquis of) TAVISTOCK.

Warblington House, Havant. April 9, 1922.

IN-BREEDING OF WILD SPECIES.

Sir,—You are probably correct in saying that with many birds brother and sister do not normally mate by preference. There is, however, one genus where brother and sister always normally appear to mate. In many years' experience with Cranes of various species, some being full-winged at complete liberty, I have never known the two young of opposite sexes fail to mate with each other on reaching maturity. It would appear that fresh blood is only introduced into crane families in the natural state, as the result of the death of a bird by accident, or the failure of an egg to hatch.

Havant. April 7, 1922. (The Marquis of) TAVISTOCK.

DIFFICULTY OR FAILURE OF WILD BIRDS TO RESCUE THEIR YOUNG.

Sir,—It is strange how rare it is, even for the most intelligent of birds, to rescue their young by using the beak to lift or carry them when they have fallen into some place of danger. Cranes are devoted parents, but if their chicks become imbedded in soft mud, they are quite unable to release them. The other day I came across the body of a young raven, which had fallen from its nest on to the ground not many feet below. It must have been both visible and audible to the parents, yet, with all their sagacity, it had not occurred to them to carry it back.

The *American Naturalist* and writer Long records having seen a Canadian gander pull his offspring out of a bog hole into which it had fallen. I have always wanted to find out if the incident were fact or fiction.

Havant. April 7. 1922. (The Marquis of) TAVISTOCK.

PHEASANTS AND ELDER AS GREENFOOD.

Sir,—I have been surprised to notice the Golden Pheasants, which have been entirely wild here, for more than twenty years, feeding greedily on the young shoots of the elder trees. The foliage of this tree is so strongly flavoured that even captive birds usually leave it alone.

Havant. March 27, 1922. (The Marquis of) TAVISTOCK.

[Captive birds will certainly eat elder, though less freely than they do other kinds. Some years ago, when I lived at Bedford Park, I planted elder in my very modest aviary in the hope of having some living green: I allowed the bushes to get a start before turning in the birds, but before a year had passed the elder bushes were a mass of dead sticks, owing to the birds refusing to allow shoots from the base, or buds along the branches, to develop. Quail were responsible for the destruction of the base shoots, and various passerine species for the branch buds. Later I built an aviary at Mitcham, enclosing in the flight large clumps of elder, hazel, privet and hawthorn fifteen feet high—the elder had lateral arms twelve feet long; this elder bush was, of course, too huge to be readily killed by the birds, but *they did all the pruning required.* This, of course, with such a rapid growing tree, meant "some" pruning! I noticed that comparatively few flowers were allowed, these being eaten in the bud stage; of the flowers which did open only an occasional berry was allowed to ripen, as these were readily eaten in the *green stage.* I have seen Pekin Robins, Black and also Blue Tanagers, Malabar Mynahs, and Cardinals feeding on the unripe berries, *i.e.*, berries of full grown size but totally unripe. On one occasion the late H. Goodchild saw them doing so, and was very astonished when I told him they did so regularly. As regards the interesting instance recorded above by the Marquis of Tavistock I can make no comment save that I have seen wild *Turdidae* feeding on unripe elderberries. Certainly, except in quite large aviaries captive birds will not allow elder to exist any more than more edible (from our point of view) kinds of shrubs and plants.—W. T. Page]

ERRATA.

Sir,—I notice two *errata* in my contributions to Bird Notes : page 53, line 1 should read " The very thing I've waited for *for* years!" and page 67, last paragraph should be "Strange to say *it is* not unknown among wild birds;"

April 7, 1922. (The Marquis of) TAVISTOCK.

Post Mortem Reports.

Vide rules on page *ii.* of cover.

Yellow-billed Cardinal (♀): Capt. Reeve, Leadenham.—Decomposed.
Violet-eared Waxbill (♀): Duchess of Wellington.—Congestion of lungs.
Budgerigar : S. Williams, London, N.—Congestion of lungs.
Paradise Whydah : T. O. Harrison, Sunderland.—Bronchitis.
Orange Weaver : Mrs. A. Chatterton, Ruislip.—Congestion of lungs.
Blue Budgerigar : Mrs. Foster, Torquay.—Enteritis.
Blue-breasted Waxbill : Mrs. Calvocoressi, Liverpool.—Pneumonia.
Indigo Bunting : Mrs. Calvocoressi, Liverpool.—Decomposed.
Cockateel (♀): Capt. G. E. Rattigan, Devon.—Pneumonia.
Yellow-billed Cardinal (♀): Capt. G. E. Rattigan, Devon.—Decomposed

NATH. S. LUCAS, M.B., F.Z.S.
Hon. Pathologist.

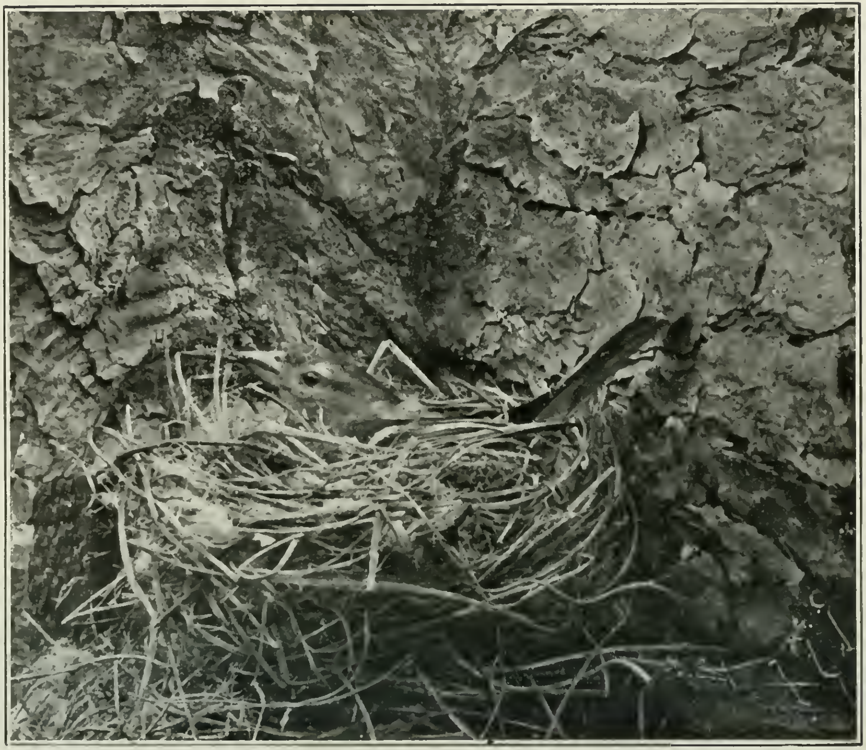

Photo by W. Shore Baily, F.Z.S.

Algerian Chaffinch brooding young.

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BIRD NOTES:

— THE —

JOURNAL OF THE FOREIGN BIRD CLUB.

May in My Aviaries.

By W. Shore Baily, F.Z.S.

I wonder whether any of our members can remember a May in any way similar to the one that has just ended—*I* can't! From an avicultural point of view it has been the most disastrous experienced here since I took up the hobby of bird-keeping—not entirely from the extraordinary climatic variations we have experienced, but partly from this cause, and partly from a series of untoward happenings.

On the 1st of May in Wiltshire the weather was cold and raw, with winds steady in the east; the elms were absolutely leafless, and the hedges entirely bare; in spite of this I turned my birds into the outside aviaries at the usual time. Now, at the end of the month, we have semi-tropical conditions, the thermometer for the last ten days having ranged well over 80 degrees in the shade, and the poor birds, instead of suffering from chills, have been half baked by the hot sun.

The following daily notes may be of interest to our readers:

May 1st.—A great loss occurred. My cock Tragopan, a most beautiful bird, was picked up dead. It had burst a blood vessel whilst displaying. When found, its horns were extended, as was the gular lap, but the colours were fading.

May 2nd.—Hen Dick-cissel died of enteric; cock Bobolink killed by Weaver.

May 3rd.—Algerian Chaffinch and Stripe-headed Grosbeak laid. The Chaffinch built a neat nest, but it was not covered on the outside with lichen as is usually the case with the nest of the common bird. The Grosbeak built this time in a box; four eggs were laid in each case.

May 4th.—Pileated Jay killed. This bird was in an aviary with two Azure and one Yucatan Jays, and they had agreed very well together during the winter. The head and neck of this bird were stripped of flesh when found.

May 5th.—Three young Peacock Pheasants hatched. These are pretty little things when first hatched, the back being striped with buff and brown.

May 6th.—Crimson-headed Marsh-bird killed. This bird was picked up against the wires of the aviary, and on being sent t the taxidermist, he reported that it showed the clawmarks of a cat, but suspect the Jays in the adjoining aviary were the culprits.

May 7th.—Two Yellow Weavers laid. Military Starling killed. The head and neck of this bird was cleared of flesh in a similar way to that of the Jay.

May 8th.—Mistle Thrush sitting. The nest, a typical one, was built on the lintel of the door, but the bird sat steadily in spite of this.

May 9th.—Military Starling and Crimson-headed Marsh-bird killed. The heads and necks of these birds were like the others. Suspected a cock Olivaceous Thrush which was seen chasing a pair of Common Quail. Had its wing cut.

May 10th.—Spotted Eagle Owl laid a soft egg. The bird was very mopy the day before this event, and I thought that I should lose her. Suspect that she has got a bit too fat..

May 11th.—Hen Grey-headed Sparrow (*Passer diffusus*) laid. This bird was mated to a cock Cutthroat, who was in constant attendance at the nest.

May 12th.—Yellow-throated Sparrow laid in an artificial nest-box. Hen Diuca Finch and cock Misto Seed-finch killed.

May 13th.—Ground Thrushes nesting.

May 14th.—Cock Ground Thrush missing. This bird had been suffering severely from asthma, and I concluded that this was the cause of death.

May 15th.—Pair Shore Larks and a hen Diamond Dove killed by weasel. This little brute was no doubt the cause of the death of many of the other birds. I had seen it in the aviary early in the year, but as the little Quail, Larks, and other

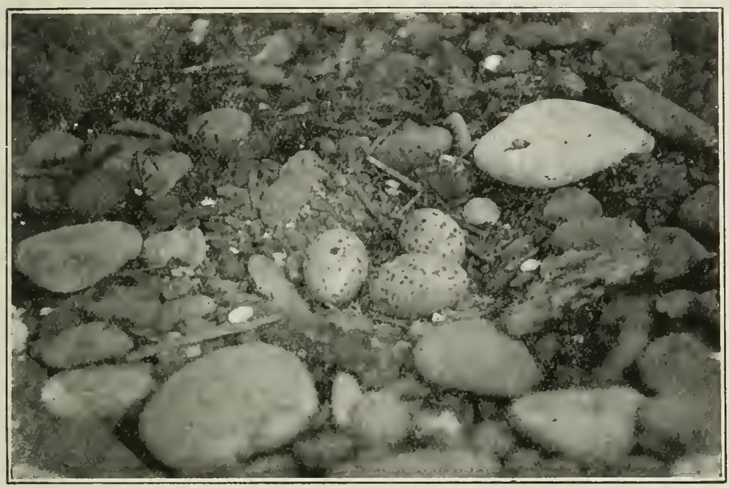


Photo by W. Shore Baily, F.Z.S.

Oyster-catcher's Nest.

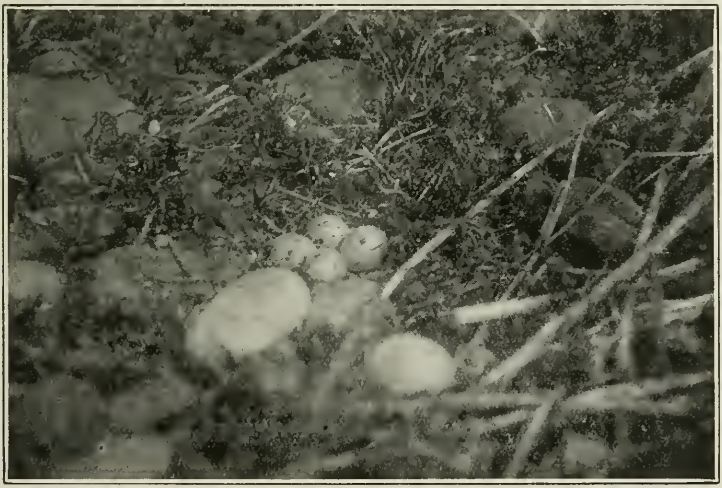
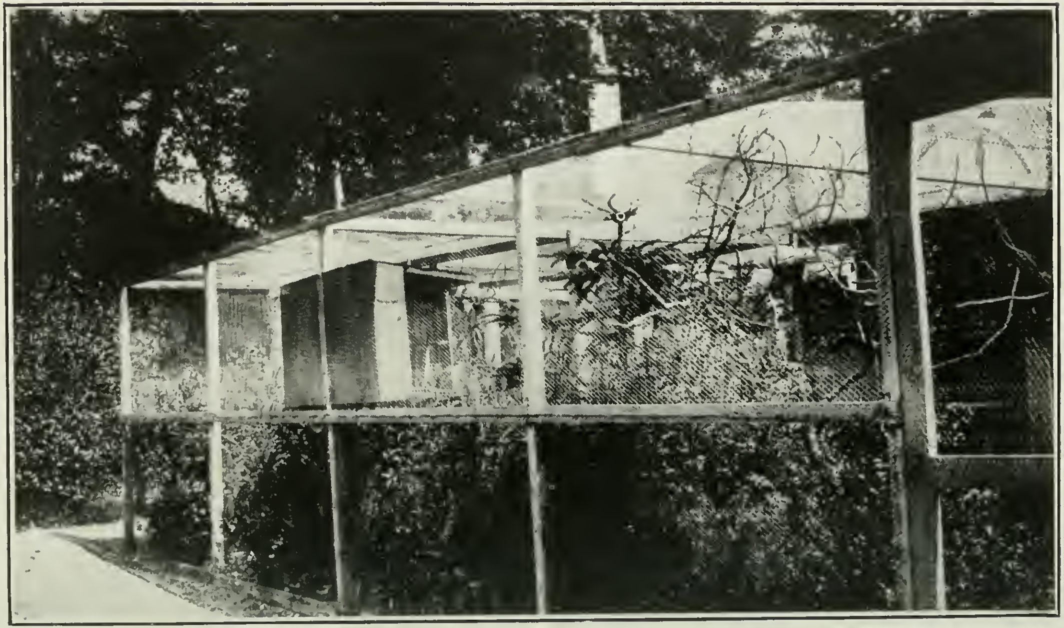


Photo by W. Shore Baily, F.Z.S.

Ring Plover's Nest.



Mr. Pullar's Aviary No. 3. West Side.

May 24th.—Algerian Chaffinch hatched. I had removed two of her eggs and put them under the Stripe-headed Grosbeak hen, whose own eggs were infertile. The nestlings were ugly little things and were covered with long white down. They only lived three days, as neither the hen Chaffinch nor the hen Grosbeak seem to be able to find suitable food for them, although they brooded them very carefully, even after the poor little things were dead.

May 25th.—Misto Seed-finch laid. The nest was in a patch of grass and not very well hidden. It is lucky that the weasel is defunct.

May 26th.—2 Peacock Pheasants hatched.

May 27th.—Californian Quail sitting. Golden-breasted Bunting missing.

May 28th.—Manchurian Pheasant sitting nine eggs.

May 29th.—Mistle Thrush hatched three common Thrush's eggs. These were substituted for her own eggs, which were, of course, infertile, as she has no mate.

May 30th.—Monaul laid. A fine egg very similar to that of the Capercailzie. Cock Shore Lark died.

May 31st.—Horned Guinea Fowl sitting. Demoiselle Cranes playing at nesting. I have had this pair of birds six years—the former owner had them seven years. This is the first season that they have made any pretence at nesting. The hen spends a good deal of her time incubating a stone.

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Spring Notes for 1922.

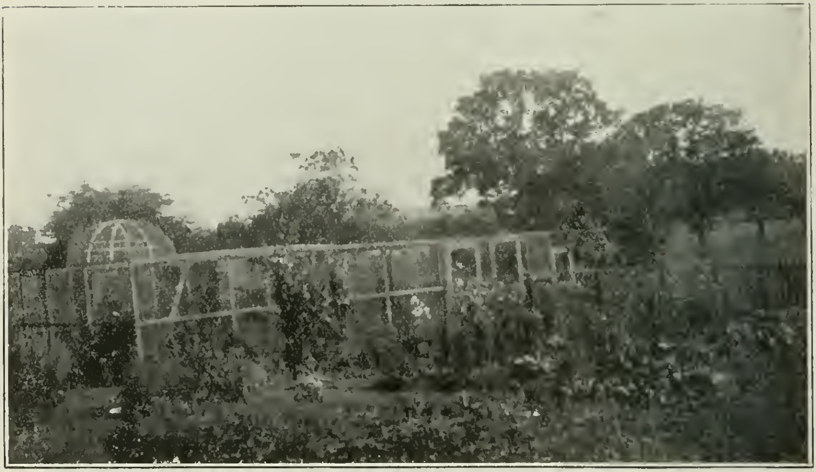
By L. F. R. Pullar, F.Z.S.

The past winter was a mild one, and I lost no birds from climatic causes. I was, however, very unfortunate in losing my pair of Peach-faced Lovebirds (*Agapornis pullaria*). These were delayed on the railway on their return from a show, and this, added to the fact that the stewards had not supplied sufficient seed, caused their death. I have only recently been able to get another pair. The only other losses of importance were a Virginian Cardinal (*Cardinalis cardinalis*) and a hen Blue Budgerigar.

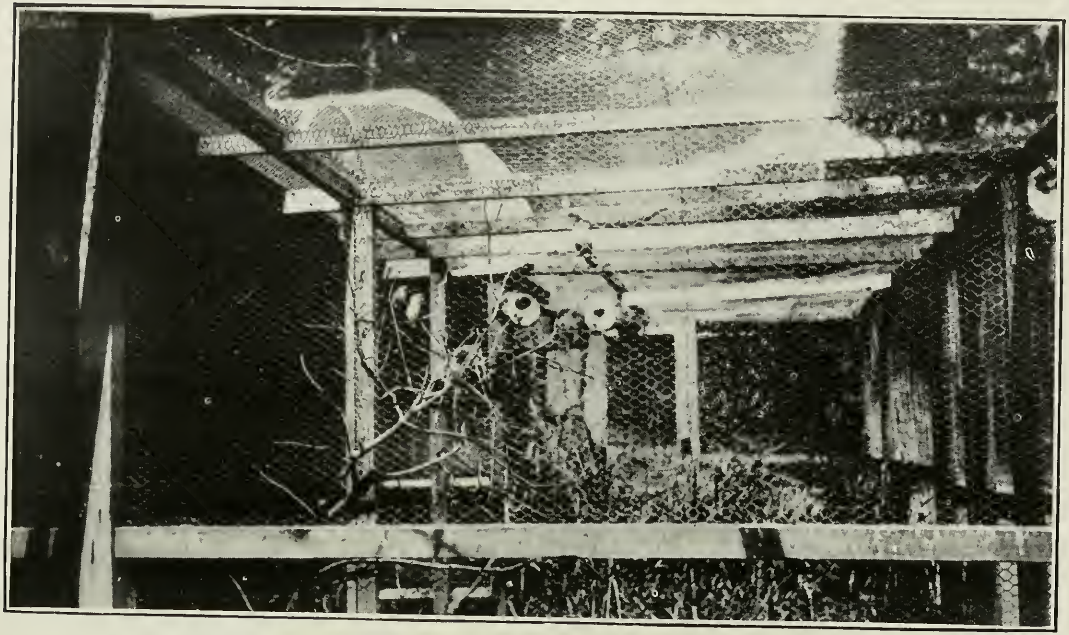
Most of my pairs have now been removed from the indoor flights to the outdoor aviaries. My aviaries are not so crowded this season, and I hope for better breeding results. Last year I had far too many common Budgerigars and odd birds, but these have now been disposed of.

AVIARY NO. 1: This is a small affair (16ft. x 6ft.), but it is a useful size for a single pair of Parrakeets. In it I have a fine pair of Red-headed Conures (*Conurus rubrolarvatus*) which, I hope, will nest. Both birds are very tame, but I have not been encouraging this lately, as I find that very tame birds are disinclined to breed.

AVIARY NO. 2: This measures 16ft. x 16ft., and in it I have four Prince Lucian Conures. There is at least one true pair among them, and I am hoping that these will nest. These are my favourites among the conures, although they are not very brightly coloured. Still they are handsome little birds, and do not scream like the larger conures. Last season one pair occupied a nest-box, but they did not lay, as they were disturbed by mice. I have taken care that this shall not happen again. The other occupants of this aviary are a pair of Green Cardinals, which are great favourites of mine, and are nice birds to keep with Parrakeets. I have only recently bought this pair, but the hen is already inspecting nest-boxes.



West Side of Aviaries Nos. 3, 4 and 5.



Mr. Pullar's Aviary No. 3, East Side. Photo taken from No. 2 Aviary.

The next aviary is my largest and measures 36ft. x 24ft. In it I have the following pairs:

1 pair Jendaya Conures (*Conurus jendaya*).
1 pair Brown-throated Conures (*C. aeruginosus*).
1 pair Peach-faced Lovebirds (*Agapornis roseicollis*).
1 pair White-winged Parrakeets (*Brotogerys virescens*).
1 pair Green Cardinals (*Gubernatrix cristata*).
1 pair Californian Quail (*Lophortyx californica*).

I am hoping the Brown-throated Conures will nest, as they are a true pair. The Green Cardinals successfully reared one young bird last season and should do better this year. The Jendaya Conures are new arrivals, but seem quite peaceful though somewhat noisy. I also intend adding a pair of some species of Australian Parrakeets to this aviary—probably Stanleys.

All the aviaries are fitted up with logs and nest-boxes, also boxes with long spouts. The latter are favourites with all my parrakeets.

During the winter I bought a pair of charmingly-tame Orange-flanked Parrakeets (*Brotogerys pyrrhopterus*). These were delightful in the house, but as they had their wings clipped, and the hen was none too strong, I decided that they would not be suitable for an aviary. I therefore parted with them with much regret. A strong, full-winged pair would be most interesting in an aviary, but I do not think they could stand bullying by other birds.*

I have also a pair of finger-tame Illiger's Macaws (*Ara maracana*). They are very gentle and never attempt to bite. I have not yet decided whether to keep these or not, as I think they will cause trouble in the aviary. At present I have them in cages. They are a true pair and I am sure they would nest if I could give them an aviary to themselves. Unfortunately all my accommodation is full for this season. They are not noisy for Macaws and would look well on the wing in a large aviary.

I have two more aviaries, each 10ft. x 8ft. In the first of these I have a pair of Euops Conures (*Conurus euops*). I have not put these in the large aviary this season as they spoilt several nests last year through inquisitiveness. They want to see what is in every nest, and might kill the young birds; so this year I have put them where they can do no harm. Still they are not vicious birds, and agree well with birds of their own size and strength. I notice that since the moult they have much larger areas of scarlet in their plumage, and expect this will develop still more as they become fully adult.

My last aviary is devoted to Budgerigars. I have pairs of Blue, Olive, Apple-green, and Blue-bred Green, and hope to have a good number of young by the end of the season.

The beginning of the season always finds me very hopeful, and I picture crowds of young birds. So far my successes have been very few and insignificant, but this year I think I shall do better, as my aviaries are not so crowded; moreover, many pairs which I got in the late summer have had time to settle down. Anyway, I wish a most successful season to all members of the F.B.C.

[A pathetic interest attaches to the above notes, dated April 25th, as they are the last which can reach us from our young member's pen, as he died after three days' painful illness (pneumonia) on April 30th, within two days of his eighteenth birthday—he is a distinct loss to aviculture, as he was keenly intelligent and observant, and took his birdy obsession very seriously; BIRD NOTES will certainly miss his seasonal contributions. To his sorrowing parents and sister we tender our profound sympathy.—ED.]

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Notes on Jungle and other Wild Life.

By DR. CASEY A. WOOD, M.B.O.U.

(Continued from page 88).

Do caged birds on shipboard suffer from seasickness? Well, some of them do. One rather stormy day, when between Bermuda and Sombrero Light, our good ship rolled and tossed a good deal, and some of the passengers retired for a reason— John the Third was noticed to be frankly and freely indulging in an attack of *mal de mer.* It was not an ordinary fit of "gagging," but the genuine article, followed by that unmistakable "glazed" look about the eyes, that indifference to his favourite food, and that wobbly, groggy state, from which he did not recover until we had reached more quiet waters. My observation of them leads me to believe that, except when at play, parrots strongly object to swaying branches and irregular swinging cages; in their sober moments they seek the stiff limbs of steady trees; and, as all naturalists know, they nest and often sleep, like woodpeckers, in holes scooped out of arboreal trunks. Perhaps that is one explanation of the large mortality among captive birds imported from Africa and America in small cages and across stormy seas.

Speaking of parrots, a good many West Indian islands have had, and some of them still have, varieties of these beautiful and highly intelligent birds that are, in certain instances, peculiar to the Antilles. Austin H. Clarke, who has written much on the subject, tells us that the parrakeet, once abundant in the hills of Barbados (I notice that the Rev. Griffith Hughes, writing in 1750, counts the " Parakite " among the native birds of the island), has suffered the same fate as most of the other West Indian parrots, parrakeets and macaws. Not only are they unknown to any living native, but even tradition hardly records their early existence. Worst of all, the memory of barely a single species, a Cuban variety (*Ara tricolor*) is preserved as a museum specimen. It seems outrageous that these lovely and sensitive animals should be treated by both natives and (some) whites as game birds, and that the edible quality of the parrot should be partly responsible for his extermination. Clarke also points out that their conversational powers and their reputation as pets led to wholesale traffic in immature birds, and their nesting places were so constantly watched that scarcely any of the young were allowed to go free. Then, again, parrots are particular about their food, and betray their presence by the litter of torn fruit on the ground about trees in which they habitually feed. Once such a tree is discovered all the (pot) hunter has to do is to sit nearby and shoot the birds as they fly in.

Another fatal and pathetic quality that leads to the easy destruction of these species by their human enemies is the parrot's devotion to his mate and to the flock of which the pair form an essential unit. When a parrot is killed or wounded the others, hitherto wild, wary and unapproachable, at once lose all fear of the hunter in their solicitude for their unfortunate companion, and remain in the vicinity and within range until all or most of them are killed.

Still another cowardly method of exterminating these attractive birds is to place a tame decoy in a tree with a line attached to his leg, the pulling upon which at intervals causes the captive bird to call out and thus attract passing pairs or flocks.

As recent agitation of the matter has resulted in the enactment of protective laws by the various insular legislatures, many of the disappearing parrots may be saved, but some of them are already so reduced in numbers that it is doubtful whether they will survive.

Although the indigenous birds of Barbados are, like those of Bermuda—another isolated, non-continental, island—comparatively numerous, yet they are divided among very few species, of which there are only about seventeen in the former colony. Nevertheless, some Barbadian races, like that curious animal, the Sea Parrot (*Puffinus auduboni*), is quite rare and seems slated for extinction.

I must tell you about at least one of the interesting birds of Barbados. The Sparrow (*Pyrrhulagra barbadensis*), was first named and properly described by an old friend—whose labours are over and who now dwells in Burton's City of Surcease—Charles B. Cory, lately of the Field Museum, Chicago. This charming little bird, with his dove-coloured breast and darker, grey mantle, is a fearless and friendly, some say impudent, bird, whose chief characteristic is that he invites himself at mealtime, and daily and regularly, to such houses as do not support a cat or other objectional deterrents. Flying through the ever-open window, entirely unmindful of the human beings within, he and his mate perch on the backs of chairs or other article of furniture, and look about for something to eat. The pair that attached themselves to our menage were inordinately fond of sugar, and at tea-time took possession of the sugar bowl by roosting on the rim of the same as soon as the maid appeared with the tray. One of the birds then bobbed his head into the sugar—not a very sanitary performance, you will say—and with a dozen or so grains adhering to his beak, flew to a nearby table, upon which he dislodged the sweet particles by knocking his mandibles on the wood. Then the birds picked up the particles one by one, repeating the process until they were satisfied. A lady, with whom I was discussing this matter, told me that she devised what she thought was a sure cure for the " nuisance " by placing d'oyleys, weighted along their edges, over such receptacles as milk jugs, bread plates and sugar containers, but it was of little avail because the sparrows soon learned to pull off the protecting cloths, so that she was obliged to follow the example of the hotels and restaurants and support a feline or two. Cats appear to be the only animals, unless it be the (imported) mongoose, that the Barbados sparrow really fears.

After ample observation of these odd little birds. I am of the opinion that not food alone impels them to make domiciliary visits. Often, following a full meal, and when there were crumbs lying about uneaten, have I seen a sparrow giving the contents of my room the " once over " in the minutest detail, poking into wardrobes, looking into shoes, hopping about on tables and under chairs and beds—even searching the waste basket—to satisfy curiosity, which, I am convinced, is as real and pronounced in some birds as it is said to be in some men.

When one remembers that during his three voyages across the Atlantic Columbus discovered nearly all the West Indian Islands, and that from these dates most of them began to " make history," it is no wonder they have had their due share of it. Nevis Columbus so named because of the snowlike cloud that capped its volcanic peak; and there they proudly point out the house where Alexander Hamilton was born, and still more proudly exhibit the register of Fig Tree Church, containing the entry of Admiral Nelson's marriage. The date is 1787, and the certificate testifies that " Capt. Horatio Nelson, of H.M.S. *Boreas* was, on March 11th, united to Frances Herbert Nisbet, widow." When I was in Barbados and my speech betrayed me to the negro " who had lived in the States," I never escaped the reminder that the original George Washington had profited by living in their midst.

Apart from personal contact with the haunts of these and other celebrated individuals, I recollect that in and about these islands there occurred many famous sea fights between the English and French. When I was at school my maternal grandfather, a captain in the navy, left me most of his library, one of the consequences of which was that I had to use his eighteenth century Horace, Virgil (with the s's like f's) and Homer—totally void of the predigested " notes " of my more fortunate fellows—and regarded this unassisted task in much the same light as the remiger on the second row of the trireme thought of his unhappy lot; but it was quite otherwise with five volumes of James' Naval History; they were as fascinating as any novel (dime or other) then accessible to me. I recollect to this day the story of H.M.S. *Diamond Rock*, which, if *you* remember, please pass on to the next item. Three times have I seen the *Rock* during the past two years, and three times have I, for the sake of old memories, scanned it attentively.

About a quarter of a mile from the south coast of Martinque, between that French island and St. Lucia, there rises sheer out of the sea a naked rock that suggests, to my mind, a magnified Flatiron Building, with its almost straight sides and level top. It was between this rock and the neighbouring island that the French and British fleets were wont, during the Napoleonic wars, to play at naval hide-and-go-seek—to the advantage of the first-named, until Admiral Hood conceived the original plan of converting the rock into a garrisoned fortress. In February, 1805, the crew of a British cruiser, by means of ropes, hauled their guns to the summit; and there, for four months, exposed to all the discomforts of a broiling sun, torrential rains and the continued assaults of an active enemy, defied their adversaries. During that sixteen weeks it wasn t healthy for a French ship to come within range of *Diamond Rock!* Many a historian has told this romantic tale, but here is a paragraph or two from Aspinall's *West Indies*:—" Hood, seeing that the French ships escaped him by running between this rock and the Points de Diamante, laid his seventy-four, the *Centaur*, close alongside the Diamond, made a hawser fast to the ship and to the top of the rock, which is accessible on the leeward side, and slung with a traveller three long 24's and two 18's to the summit, the sailors looking ' like mice hauling a little sausage.' Scarcely could they hear the Governor on the top directing them with his trumpet; the *Centaur* lying close under, like a cocoa-nut shell to which hawsers are affixed." Here Lieut. J. W. Maurice, with 120 men and boys, remained for four months, their nature-built fortress being the while borne on the Admiralty books as H.M.S. *Diamond Rock*. From this commanding position they harassed the French fleet until 1st June, 1805, when, through want of powder, they were compelled to surrender to a French squadron of two seventy-fours, a frigate, a corvette, a schooner and eleven gunboats, upon whom they inflicted severe loss, only themselves losing two men killed and one wounded.

South America may be regarded as the homeland of ant life. There are microscopic ants, small ants, medium-sized ants, and ants so large that they may easily be mistaken for big cockroaches. There are also stupid ants and wise ones, as well as ants that possess not only all the human senses but other perceptions that we wot not of.

Here is one of our numerous experiences of these mysterious creatures. One evening E. remarked that she had seen few insects about the hotel—some flies, fewer cockroaches, and, most remarkable of all, hardly any of the ant races. I replied that it was very likely due to the excessively dry season. Thus did we both attract the evil eye and were " overlooked. ' Half an hour afterwards we were astonished by a solid stream of scavenger ants stretching from a waste-paper basket (into which I had most improperly thrown a small box containing the remains of some Christmas bon-bons) to the baseboard of the room. This mass of little red ants was an inch wide, and the column made straight across the room, ten feet away, crossing over but never going around any of the obstructions in their path. Every foot or so of this insect army was officered and controlled by larger and quite different coloured ants, who ran hither and thither, in striking contrast to the ant mass that was headed always in the same direction—towards the crack in the baseboard—behind which they disappeared. After watching this phenomenon, quite common in tropical countries and occasionally seen in temperate localities, E. said " Why, they seem to be going all one way and to be coming from the basket." Investigation proved that an incoming column could be traced back from the basket, out into the hall, along and past two fairly large adjoining apartments, into and across a third room, to emerge from *its* baseboard at least 100 feet from the exit in my room. Thus we had to deal with a solid column or stream of officered and picketed red ants (*Monomorium pharaonis* Linn., to furnish the necessary scientific background) travelling along and forming the inch-wide periphery of a circle thirty yards in diameter. We made several experiments with this ant " material," but the most remarkable incident occurred when we removed the basket altogether; marshalled and captained as before, the pharaohic host disappeared as if by magic into their home by the baseboard. We never saw them again, unless as individuals, as isolated detachments or as small squads scouting for miscroscopic grains of food. Doubtless it is an easy matter for the close student of Fabre and other psycho-entomologists to say who carried the first news of the basket treasure, who ordered and generalled the expeditionary forces, and who eventually sounded the general retreat, but to mere observers like E. and myself the mystery deepens the more we see of these comparatively simple and every-day insects. As for the Army ants, we are all at sea. When we consider *their* ways we are *not* wise.

It is only fair to add to these platitudes that after I had penned them I saw the following account of the activities of an allied species, written for the Demerara *Argosy*, January 18th, 1922, by a well-known Guiana naturalist—Mr. Harold W. P. Moore. He answers several of these questions, and says:— " Is there any animal other than man that can so clearly inform another of its kind where a particular object is that the one told can go and find the object without much difficulty? Yes, there is, and the animal which shares this power with man is none other than the ant. Times without number have I seen ants tell another where a bit of food could be found, and seen this second go right off and find it, but it comes home forcibly to me now because only last week I saw it done. One of my windows is frequented by a certain kind of warlike and carnivorous ant—always among the most intelligent of the lot—which is in the habit of taking by force from some spiders any flies or other insects these may happen to entrap. When the ant arrives on the scene, the spiders soon have to leave them in possession of whatever prey their webs and skill may have got them. They are unable to fight the ants. As it was the first time I have had an opportunity of observing this particular species of ant, I thought I would experiment with it, as I have done before with some others. I killed a fly and placed it near one of the scout ants and about four feet from where their domicile was. The ant was not long in finding the fly. It then made off towards home. Just outside it met a comrade with which it remained in close contact for two or three seconds, the latter becoming more and more excited while they were together. On parting, the first ant went on to the home, while the second started off in the opposite direction at a brisk run along the path traversed originally by the first. On it hurried until it got opposite the fly to get to which it would have to turn aside about an inch and a half from the straight path. The bend seemed to puzzle it a little. It went past an inch or two and returned, and did so for two or three times, evidently hunting for the trail laid by the first. Finally it picked this up, turned aside and was at its objective."

Something more wonderful yet can be seen with these ants. The scouts or small workers can report to headquarters whether an object they have found is dead or alive, or requires a turn-out of the big workers or carvers, as I call them, as these are ants with a large head furnished with a formidable pair of sharp jaws for cutting up where necessary, an object found. Let a scout find a few grains of sugar, for instance. When the scouts report only similar small workers come out to fetch them in. Let them find a small dead fly which they can handle easily themselves. There is no turn-out of the carvers. Let the scouts report a dead cock-roach. The carvers come out, as it is a big object and may need not only some carving but also the superior strength of the big workers for bringing it home. In such a case the carvers do not come out in a very excited manner. Let, now, the scouts report a small live moth, or a cockroach which, though you have smashed, still has a deal of life left, or a stubborn hard-back, and the carvers turn out in a very excited manner, and hurry along with jaws agape and threatening. They know they have been summoned to give a speedy quietus to some troublesome quarry."

As with mosquitos elsewhere, the tropical species are given to hiding during the day (preferably in dark corners and in the folds of black clothing) and seeking victims during the night; they are generally nocturnal animals. Taking advantage of that trait, a Barbadian (or Badian as they sometimes call themselves) told me he had been able to keep his house almost free of the pests by placing in each room a black-lined, tin biscuit box, each one provided with an opening three or four inches square. As daylight approaches, the insects find their way into this favourite nest, which during the day is covered, removed, and its contents appropriately dealt with.

Fortunately for the inhabitants, there is no native malaria (i.e., no *anopheles*) in Little England; hence, the device just described is not directed against disease-bearing insects so much as against the local *culex*, a vicious beast, small, aggressive and almost noiseless, so that one is usually ignorant of the creature's presence until he bites.

In this connection, I am not so confident as I once was of the superior efficacy that the screening of houses and verandahs affords in the tropics over a careful provision of nets over the beds, and the wearing of mosquito boots. A number of houses and one whole village are to be seen in the Guiana Colony protected after the American plan; but with an irresponsible colored population to deal with one must exercise eternal vigilance, that exits are constantly watched, that the screening does not interfere with the free ingress of the winds of heaven to every nook and corner of the house—the *sine qua non* of life for white people in the Tropics.

No more in equatorial lands than up north can there be found agreement as to the order of excellence in fruits. Which do *you* really prefer (always assuming that they are the best of their kind), apples, peaches or pears? Which does a St. Lucian like better, a ripe pineapple (which we all know is not an apple at all and doesn't grow on a pine or any other sort of tree) or one of his own grafted mangos? If anybody is unwise enough to ask me my preferences in tropical fruits, I reply:—First of all, give me every morning for breakfast half a medium-sized paw-paw, iced and served with lime-juice and sugar, so that I may know the combined, fruity qualities of the musk melon and the peach; then, for second choice, a russet-brown sabadillo, whose pink flesh suggests a perfumed watermelon; then, a ripe-on-the-tree avocado, or alligator pear, also reinforced by a ripe lime; then, an island pineapple, and, finally, a St. Lucie mango. There are a dozen others in common use (a ripe-on-the-tree yellow banana is not to be despised), but you may ignore them if you can command the best varieties of these five.

(*To be continued*).

Notes on Some Forms of *Cissolopha*.

By Lee S. Crandall.

After reading Mr. W. Shore Baily's interesting article on Jays, in Bird Notes, for March, 1922, it occurs to me that some notes on the forms of *Cissolopha*, which usually appear in the market as "Yucatan Jays," might not be amiss.

Five species and sub-species of this genus are known, ranging from Mexico into northern Nicaragua. In general, all have the head, neck and underparts black, and the remainder of the plumage some shade of blue. At first glance they seem very much alike, but on closer examination it is found that they really are easily distinguished. Four of the forms have been represented in the collections of the New York Zoological Society from time to time—we have three of them at this writing—but the fifth I have never seen alive.

The typical Yucatan Jay (*C. yucatanica*) is by far the most common in captivity and is the one usually seen.

Adult birds may be known from the other forms by having the head free from crest, the irides dark in colour, and the legs yellow.

Young birds of this species, strangely enough, are white where the old birds are black, and have the beak yellow as well. In 1911, in collaboration with Mr. Wm. Beebe, I had the pleasure of describing this plumage for the first time, as well as some of the intermediate stages.

Beechey's Jay (*C. beecheі*) has a circle of elongated, erectile feathers around each eye, a character not seen in any of the others. Moreover, the iris is a pale greenish yellow, and the legs are dark, nearly black, in colour.

The San-blas Jay (*C. san-blasiana san-blasiana*) has a scant but fairly long, recurved crest, just back of the base of the bill and overhanging it. It also has the legs and irides dark.

THE ACAPULCO JAY (*C. s-b. pulchra*) is similar, but has the blue parts much darker. These forms are not easily distinguished when only one is seen, but when living together in an aviary, as we have had them here, the difference is very decided.

The fifth form, HARTLAUB'S JAY (*C. melanocyanea*) I never have had the pleasure of seeing alive, but it has a heavy, bushy crest, so that it should easily be known to the fortunate aviculturist who might happen on it.

I am aware that the characters noted above would not suit the technical systematist, but I am sure they will serve to identify living birds at a glance, and I take it that is what is wanted by the aviculturist.

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The Undescribed Juvenal Plumage of the Yucatan Jay.

BY C. WILLIAM BEEBE, *Curator of Birds*, AND LEE S. CRANDALL, *Assistant Curator*.

SCIENTIFIC CONTRIBUTIONS OF THE NEW YORK ZOOLOGICAL SOCIETY.

I.

On September 3, 1911, three jays in immature plumage were received from Yucatan. The plumage was a hitherto undescribed one, and a drawing was made of one of the birds on September 8. The subsequent postjuvenal moult transformed the birds into undoubted *Cissilopha yucatanica*. This change is described in detail in Part II. of the present paper.

Both Sharpe (1) and Salvin and Godman (2) describe the female of this jay as differing from the male in having the beak yellow instead of black, and the outer rectrices tipped with white. Our collector who brought north the young birds, reflecting the opinion of the natives in Yucatan, asserts that the white rectrice tips alone characterize the female. Ridgway (4) describes the adult sexes as alike, and considers the yellow

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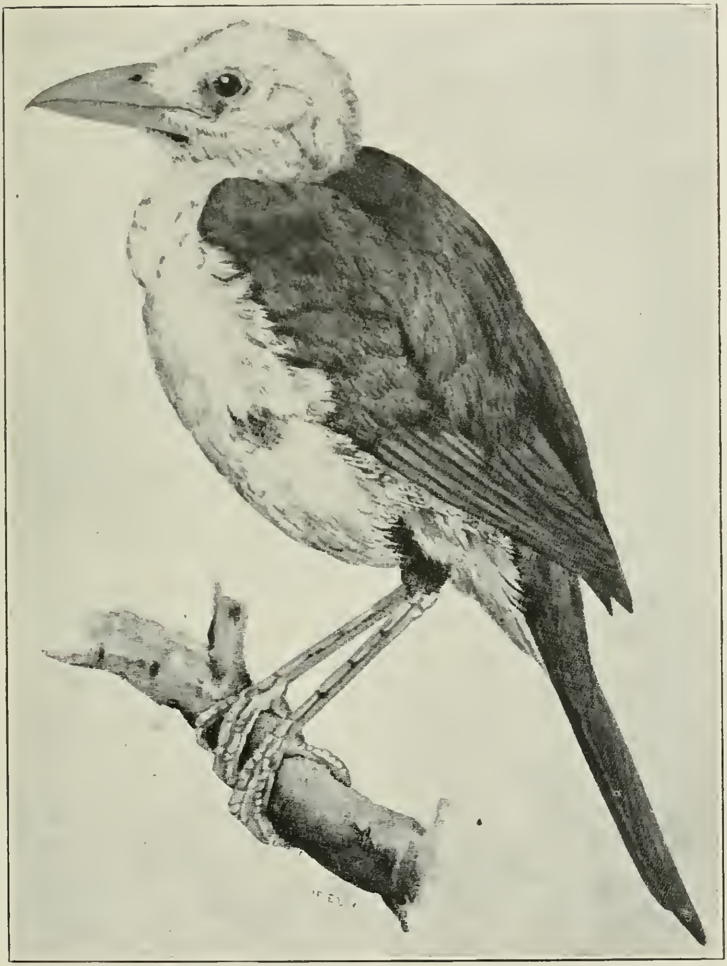
1—1877. Sharpe, Cat. Birds Brit. Mus., III., 133.

2—1887. Salvin and Godman, Biol. Cent.-Amer., Aves, I, 498, pl. 35.

4—1904. Ridgway, Bull. U.S. Nat. Mus., No. 50, Part III., 315.



Yucatan Jay in Juvenal Plumage.

Reproduced from coloured plate in Proceedings of New York Zoo'l. Soc.

beak and white-tipped rectrices as "immature" characters. This he evidently bases on Chapman (3) whose notes on this species are obtained at first hand in the field. Chapman writes as follows:

"Current descriptions of this bird, including that in the 'Biologia,' ascribe the differences shown by certain individuals in the colour of the bill and tail to sex, the male being stated to have a black bill and tail, while the female is said to have the bill yellow and the tail tipped with white. My series of twelve specimens shows that this variation is not sexual, but is evidently due to age. Thus I have males and females with black bills and tails, and also examples of both sexes in which the bill is yellow and the tail tipped with white. The series also contains intermediates between the two extremes.

"How long a time is required for the acquisition of the adult plumage remains to be determined. Apparently at least two years, for each group of jays had several yellow-billed individuals, about one in every four birds giving evidence of immaturity."

The chief points of interest may be thus summed up:

1. The juvenal plumage of *Cissilopha yucatanica* is characterized chiefly by the entire head, neck and under parts being white; bill and eye-ring orange yellow; iris pale hazel brown; all but the central rectrices more or less tipped with white. This white plumage is retained from the time of leaving the nest, about July 15th, until October.

2. The first winter plumage is acquired exactly as in our northern *Cyanocitta cristata* by a partial postjuvenal moult (Dwight [5]), reaching its height in October. The head, neck and underparts become black; the iris darkens to a cold slaty gray; the primaries and rectrices are not moulted, but if the latter are accidentally pulled out, they are replaced with feathers showing no trace of white.

3. The advance toward an adult plumage in this species is marked chiefly by an increase in dark pigment; sudden and complete in the body plumage of head, neck and underparts in the fall moult, and in the lateral rectrices in the first moult of the

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3—1896. Chapman, Bull. Amer. Mus. Nat. His., VIII., 282.

5—1900. Dwight, Ann. N. Y. Acad. Sci., XIII., 152, following year; more gradual in the colour of the iris; and still more gradual in the colour of the mandibles and eye-ring.

II.

JUVENAL PLUMAGE OF THREE INDIVIDUALS.

Individual A.—(Fig. 51).

Seven Weeks Old (September 8, 1911).

Head, neck, breast, belly and under tail-coverts pale creamy white, faintly tinged on the crown with blue, all of the white feathers with sooty black bases; above, pale blue, with a few new feathers of brighter blue; wing-coverts like the back; remiges sooty black on inner web and rachis, (rachis white below), outer web bright blue like new back feathers. The blue on the tip of the inner web gradually increases, from the outer feathers inward, so that the inner secondary is uniform blue, with the exception of the proximal portion of inner web. Under wing-coverts sooty black, with faint lighter bars; tail bright blue above, black below; rachis black above and below; thighs brownish black, tinged with blue at the tarsal joint. Legs and feet pale yellow; bill orange yellow. Iris dark hazel brown. A small patch of black feathers is appearing at either side of the breast and scattered ones throughout the rest of the underparts, but none on the head. In both this and the other individuals the rectrices are so broken that it is impossible to state the amount and place of occurrence of the white. Bill 32 mm., tarsus 46 mm.

Sixteen Weeks (November 18, 1911).

Feathers of the head, neck and upper breast deep black, a few white feathers, interposed with black ones, remain above and below the eyes and on the lores and chin. The lower breast and abdomen are slightly tinged with blue, which becomes more distinct on the under tail-covers. The back and scapulars are uniform bright blue. The lesser coverts, carpal edge and inner median coverts and all the greater coverts have not as yet been moulted. Wing and unplucked tail feathers have not been renewed, nor have the under wing-coverts and the feathers of the thighs. The eye-lid is bright yellow, the bill and legs somewhat paler. The iris is dark slaty gray. All of the feathers, except rectrices, remiges and upper wing-coverts, are loose in texture, the barbs few, long and disconnected. Bill 33 mm., tarsus 46.5 mm.

INDIVIDUAL B.

SEVEN WEEKS OLD.

Similar to A, except that the sooty bases are present on only a few isolated feathers; a distinct blue tinge on the crown; thighs wholly bluish black; pectoral tracts of incoming black feathers further advanced; crown, nape and sides of the neck thickly sprinkled with black blood-feathers. Bill orange yellow. Bill 35 mm., tarsus 47 mm.

This specimen was skinned and preserved in its juvenal plumage.

INDIVIDUAL C.

SEVEN WEEKS OLD.

Shows sooty feather-bases on only the anterior part of crown, where they are very pronounced. Black feathers on breast are more scattered and more advanced than in A and B, thighs bluish black. One or two dark feathers appear on the crown. Bill clear orange yellow. Bill 31 mm., tarsus 45 mm.

SIXTEEN WEEKS OLD.

Similar to A, but breast and abdomen uniform black, only the under tail coverts tinged with blue. No white feathers remain. The thighs are deep black, very slightly tinged with blue near the tarsal joint; these feathers have evidently been renewed. The under wing-coverts have been moulted and are deep black, slightly tinged with blue. Back, scapulars, carpal edge, and wing-coverts have been moulted, but not the remiges or rectrices. Bill and legs clear yellow, iris dark slaty gray. Bill 33 mm., tarsus 47 mm.

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In my Bird Sanctuary.

BY THE R.H. VISCOUNT GREY, K.G.

[In *Pearson's Magazine*, June issue, a most interesting account is given of this sanctuary at Fallodon. We make the following extracts with our apologies and thanks to Editor and Author.—ED. B.N.]

My bird sanctuary at Fallodon is not a large one. There is no park. There is no lake. There are two ponds, the larger of them less than an acre, a flower garden of fair size, and I have enclosed round the ponds two or three acres of rough ground planted with trees and shrubs. That is the place in which the waterfowl have been kept.

Three things are necessary if you wish to keep a collection of waterfowl.

1. A fence as nearly fox-proof as you can make it.
2. Quietude—in the early spring when they are in pairs, waterfowl spend some weeks looking about for nesting places cautiously and quietly by themselves, and, if they find out that they are watched, or should you come suddenly upon them, and they are disturbed, they will not select that nesting place, and will not nest at all. So even in the case of oneself or the gardener (attendant), care must be taken not to walk at random in the nesting season on ground where birds are likely to nest, for fear of destroying the chance of their nesting altogether.
3. A daily attendant who takes an interest in the birds. My gardener, Mr. Henderson, does this; and to his interest in and great care of the birds is due the credit of such success as has been attained in rearing the different species.

It is given up to waterfowl, and the following have successfully bred:

Surface-feeding Ducks.—Mallard, Widgeon. Pintail, Shoveller, Garganey, and Teal.

Diving Ducks.—Tufted, Red-headed or common Pochard, Red-crested and White-eyed Pochards.

BREEDING of the CAROLINA or N. AMERICAN WOOD-DUCK: I would tell of one incident in the breeding of the Carolina or North American Wood-duck which I thought of considerable interest. I had a good many of these birds at one time, unpinioned and therefore at perfect liberty to choose a nesting-place. Their natural nesting place is a hole in a tree. One of my ducks selected a hole in an old elm tree some three-hundred yards from the water. There she nested every year and brought out her young. The hole in the tree was a considerable distance above the ground, and Mr. Henderson (I was away at the time) was very interested to know how the duck managed to get her young brought down to the ground.

One year he noted the day she began to sit, and, as he knew the period of incubation, on the morning the duck was due to hatch the eggs he went and sat down a little distance away opposite the elm tree.

Presently he saw the duck come to the mouth of the hole and fly down into the long grass underneath, where she began calling. Then he saw the little ducks come to the edge of the hole, and fall, one at a time, except in one instance where two fell together. There were six of them altogether. and he told me they fell like corks into the long grass.

Afterwards I had the height from the ground measured. and the depth of the hole in the tree measured. It turned out that the hole was two feet deep, two feet perpendicular from the nest to the mouth of the hole. The hole was twenty-one feet above the ground, so the little ducks, newly-hatched when the mother flew out of the hole, had first of all in the dark cavity of the tree to climb up two feet within the trunk, then come to the hole and throw themselves down, and after having done that, to go with their mother for three-hundred yards through the long grass, following her to the water.

I think that this is a striking incident. Think of the little ducks left in the nest. Newly-hatched out. they had no feeding to strengthen them after leaving the egg. That they came out of the egg with such vitality and vigour that they could accomplish a climb of two feet perpendicular, and after a drop of twenty-one feet they could thereafter go off three-hundred yards through long grass, is a tremendous tribute to the energy of nature.

You will observe that the mother duck made no attempt to carry them down. Sometimes I have read in books that the common wild duck occasionally nests at a considerable height from the ground. I have seen one nest about seven feet from the ground. and know that this is so; but when I see it stated that in such cases the mallard carries the young ducks down to the ground. I doubt it. I think if any duck is in the habit of carrying its young to the ground, the North American Wood-duck would do so, as its natural nesting-places are in holes in trees and not on the ground like our common wild duck. Since this North American Wood-duck made no attempt to carry its young down to the ground, I am doubtful if any waterfowl would make the attempt at all. I will not say it is impossible. . . . .

Versicolour Teal: The versicolour teal which bred at Fallodon were, as far as I know, the only birds of this species to breed in this country. Of course, I cannot be sure. There may be some instances I have not heard of. These bred once with me and the sequel is curious. Eight were reared, so I had a little flock of ten beautiful versicoloured teal. The sexes are so alike, as is the case with several other S. American waterfowl, that young males and females are difficult to distinguish.

Unfortunately, out of the eight reared. six turned out to be drakes and only two were ducks. However, that made three pairs of versicolour teal. One pair I exchanged with dealers for something else which was rare and which I wanted, then the old duck which had bred died, and the young pair left were in the following year killed by a fox, which somehow got into the enclosure.

I found myself left with five drakes. Then came the War. Of course, during the War I made no attempt to buy any birds or replace any losses by purchase. Two drakes I sent to the Zoological Gardens. . . . . I heard of one female of the species being in the collection at Kew. I thought it worth while sending one of my drakes to Kew to mate with the female which had no mate, so I did that. In the next air-raid a piece of our own shrapnel fell and killed the female at Kew. Soon after that food became impossible to get, and what remained of my versicolour drakes, in common with several other rare things, perished. That completed the episode.

Domestic Life: Of course, as you all know, wild ducks are monogamous and not polygamous like pheasants. They have one wife, and theirs is a highly developed domestic life with great evidence of affection. When the drake has no eclipse the pair never separate during the year. Where the drake has an eclipse he separates when in eclipse, and when he comes into plumage again, early in autumn, which most of the waterfowl do, though it is so long before the breeding season, the duck and drake come together again and spend the whole of the autumn and winter displaying every sign of affection in each other's company.

The greatest instance of this I have seen I will tell you of. It was a Red-crested Pochard—a British species, though a very rare one. One drake that I reared was never pinioned so that he could fly. I had him for over ten years, and during all that time he had never been away once. He mated with a duck, a bird of his own species, but which had been pinioned and could not fly. He spent years with her, and had every appearance of being happy and contented. One day, early in the year, his mate was injured by some vermin and practically ripped open on one side. She sat on the bank for two days, perfectly helpless, and there he sat by her. She was so much injured that I had her caught and put out of her pain. There was another female pinioned red-crested pochard unmated, and I thought, of course, he would mate with her; but he would pay no attention to her. He spent, if I recollect the time—it was some years ago—two or three weeks flying about with every sign of restlessness and distress from one pond to another, looking everywhere for his old mate. I had had him for some ten years, and he had never gone away, but now, after two or three weeks he went. He flew away, and I never saw him again; it was as if he had gone on an endless search of the world for the mate he had lost.

That sort of thing is very interesting, for it shows the great natural affection which exists amongst birds of a highly developed and intelligent species. To me it is a clear proof of the fact that the relationship between the more highly developed birds is one of real domestic happiness, not confined to the breeding season only and the reproduction of species.

I know that swans become attached to each other. You can see it is so. They do become permanently attached to each other, and have domestic happiness, which plays a large part in their lives, quite apart from the breeding season.

Length of Life: Perhaps you would like to know how long this sort of bird will live. A great many of my birds are unpinioned and fly away, but in the case of a pinioned bird you can tell how long it lives. The longest-lived bird I had was a Chiloe widgeon drake. I bought him as a full-grown bird in October 1888, and he died peacefully and obviously of old age in October 1908. I do not know how old he was when I bought him, and this is the longest life I have known of any of my waterfowl. Geese, no doubt, live much longer.

ATTRACTED WILD VISITORS: Since I have had these waterfowl of different kinds at Fallodon, it has been very interesting to see the varieties of wild ones which have come to my ponds. I remember when I was a boy my father showing me a place on one of the burns at home and saying: " That is the place where I once shot a teal." And that, with one other exception, nothing but mallard has ever been shot or seen on the actual property at home. It does not extend to the sea, and the sea ducks do not come to it; but I myself once, after a great gale in the winter, shot an immature widgeon on a little pool. With these exceptions nothing but mallard used to be seen on the property at all.

Now every year my ponds are visited frequently by the Mallard, Teal, Widgeon, Pintail, Shoveller, Pochard, and Tufted Ducks. I treat the enclosure as a sanctuary. That shows how so many birds, considered rare by those who shoot, are often passing over, especially in the season of migration, and, if they hear birds of their own kind calling below, will come down and settle.

One very interesting point about wild things is how quickly you can get a perfectly wild bird tame. I remember one December afternoon finding a wild pintail drake on the pond. He rose, flew high into the air and circled round; but when he saw that the pinioned and tame birds did not follow him, after much flying at a great height he lit again on the pond. That evening when I was feeding the birds he came and looked on, and within a week he would come out with the others to feed and pick up the grain I threw to him, and even when some of the grain fell on his back he was not alarmed.

So you see how tameness in their own kind gives confidence to the wildest birds, but that tameness, that confidence, is associated with the place, which does not cause them to be less wild elsewhere than they were.

I had one good instance of that in the case of a drake

Shoveller. A brilliant bird in full plumage, he came one year in February or March and stayed on my ponds. He was not always there, but he was often there, and he adopted all the habits of my tame shovellers. If he were sitting on the bank and I walked past he would fly five or six yards into the water and sit quite unconcerned. If he were in the water he did not offer to get on the wing at all

One day after lunch I had a walk round the pond and saw he was not there. I went for a bicycle ride, and coming back, about a mile from home, I saw on a pond in a field, not on my property, a shoveller drake in full plumage. I felt morally certain it was the same drake which had come to my ponds. The pool was about one-hundred yards from the road. I got in the field and walked straight towards him. He rose off the water, went high in the air, and after circling about I saw him go straight for my woods. I stepped the distance at which he had risen, and, allowing for a few yards of water I could not step, the distance was something over ninety yards.

I bicycled straight home, and went straight to the farther pond which he usually frequented, and there he was on the water, perfectly unconcerned and tame. That is a very striking instance of how quickly birds find out when a place is a sanctuary.

[We have given the main features fairly fully of this interesting description of the Fallodon Waterfowl Sanctuary, which was not written for *Pearson's Magazine*, but was delivered as a lecture by Lord Grey to the Berwickshire Naturalists' Club, and was reproduced by permission from the recently issued proceedings of the Club. We tender thanks and apologies to the Berwickshire Naturalists' Club for the above partial reprint of Lord Grey's most interesting lecture. The article is illustrated by L. R. Brightwell. F.Z.S., two of whose drawings are quaint and full of quiet humour In one is a wire fence, on the left of which are three happy contented ducklings, and beneath them one reads " Fox-proof "—on the right is a discontented and unhappy-looking fox; beneath him is the trite title " sour-ducklings."

Another depicts a realistic sketch of the young wood-ducks dropping to the ground from the nest-hole; just above level of the hole is a peeping, quizzical squirrel.—Editor, Bird Notes.]

Correspondence.

SIGNS OF THE SEASON.

Sir,—We are getting grand weather. The birds are doing fairly well, but nothing definite as yet. Blue Robins (*Sialia sialis*) have young all but ready to leave the nest.

Baltimore Hangnests (*Icterus galbula*) have young in the nest eight or nine days old, and I am hoping they may be fully reared. The nest (snapshot enclosed) is built at the highest point of the aviary—practically out of reach of close observation, save from beneath. My little daughter feeds the Hangnest with mealworms from her hand, and my wife too—the cock bird is absolutely tame, and runs between my feet for live food.

Nest of Baltimore Hangnest.

Virginian Cardinals (*Cardinalis cardinalis*) have also nested and have a family several days old. I expect there will be trouble when the young get about, as they certainly are not an amiable species, and the birds in this aviary are not good friends as it is.

American Robins (*Turdus migratorius*) have already had one brood but these died when about half-reared. They were fully exposed to the blazing hot sun, right out on the top of a nest-box. Looks as if they knew it too, for they have nested again in a well-sheltered place.

The only young on the wing as yet are: Peaceful Doves (*Geopelia tranquilia*), Zebra Finches (*Taeniopygia castanotis*), and Cutthroats (*Amadina fasciata*).

My young hybrid Gold-breasted Waxbill × Avadavat (*Sporaeginthus subflavus* × *S. amandava*) hybrids are pretty little things—they are more like the avadavat, but have a little yellow on the breast (Your description is exactly similar to that of some reared by Dr. Easton Scot some ten years ago—though I think none have been reared in the interim.—Ed.)

An English Thrush mated to an American Robin have nested, but all their five eggs were clear—they ought to breed surely? (Only individuality stands in the way, *i.e.*, the inclination, or otherwise, of respective birds).

I think Pekin Robins (*Liothrix luteus*) also have young in the nest.

Woolton, June 11, 1922. H. E. BRIGHT.

[We think the signs are very promising.—Ed.]

MILLET SEED.

Sir,—I was most interested in Mrs. Hartley's letter on her experience of what is called Indian Millet, a sample of which I enclose with this letter, as I am anxious to know whether our editor thinks it is yellow millet. I got this seed over from England and mixed it up with Canary and a little white millet for four Zebra Finches, which were perfectly healthy up till then; they got rather dull, and a hen got very bad and died. I thought it might be the new seed as they only took ill after I gave it to them. The seed was changed to Canary and White Millet, a new hen was procured, and the four are now in perfect health.

I am starting foreign bird keeping again, and new aviaries will shortly be completed, so I take this opportunity of thanking our editor for keeping up Bird Notes to its high standard, especially for catering so much for the less experienced members of the Foreign Bird Club.

Belfast, June 8, 1922. W. H. WORKMAN.

[The sample of seed sent is Yellow Millet, exactly the same as that referred to by Mrs. Hartley—but I find a difficulty in attributing the death to its use, as there was some white millet in your seed mixture; if the birds ate the seed I do not think it would act adversely upon them. According to my experience the danger lies in so many *refusing it* and dying from lack of nourishment.—Ed.]

A FEW NOTES FROM A FRENCH AVIARY.

Sir,—Four young Diamond Finches (*Steganopleura guttata*) left the nest a fortnight ago.

I have bred some White Bengalese (*Munia domestica*).

My Red-rumped (*Psephotos haematonotus*), and Rosy-faced Parrakeets (*Agapornis roseicollis*) in the nest ready to fly.

My Blue Budgerigars (*Melopsittacus undulatus*, var. *caeruleus*) have some young in the nest-boxes.

A bad start, however; too much rain and cold.

Gery, France, April 27, 1922. A. DECOUX.

The above was not a letter written for publication, but part of a private letter, which we have taken the liberty of publishing.—Ed.

SENILE DECAY.

Sir,—The Post Mortem Report given below is interesting to me as it is the first case I have ever known of a bird dying of pure old age. The P.M. report is as follows:

"Versicolor Amazon to hand. I think your estimate of its age is "not far out. I very carefully examined this bird and could find no trace "of any disease. The cause of death is senile decay, simply. He was the "toughest old customer, I think, I have ever tackled. His hide was as "tough as a Rhinoceros, and the flesh equally tough."

One often reads of birds dying of old age, but in practically every case it is merely an assumption on the part of the owner, no examination of the body having been made. Old age may be a contributory cause, but it is seldom the only cause, and often has nothing to do with the bird's death at all.

The Versicolor was for many years in the possession of Lord Sherborne (Canon Dutton), and previously had been owned by a lady. As long as Lord Sherborne lived at Bibury, the parrot spent the greater part of the summer at liberty in the garden. When his owner moved to Cheltenham, these summer outings were no longer possible, and with the loss of his liberty "Jaco" began to show signs of age. On the death of my friend he came to me, but was so decrepit in the early summer of 1920 that I thought he could only last a few weeks. I turned him out as a sort of forlorn hope, and, to my surprise, found that he could fly quite strongly. He improved greatly, and when I caught him up in October, was quite strong again. I kept him in a room that winter, and when I turned him out next spring he was too robust, as he nearly killed the cock Great-billed Parrakeet, and started courting the hen! I was therefore obliged to put him in an aviary with a hen Goulding's Amazon. They soon took to one another, and the Versicolor fed her and they even examined a nest-box.

When winter came I put him back in a room, but after a few months the Versicolor caught a severe chill and had to be caged in a warm place. The close confinement proved too much for him, and some time later he grew very weak and died.

Had it not been for his ill-judged attack on the Great-bill, I believe he would be still alive, as another summer's freedom would have fortified him against winter ailments. He remained in good plumage up to the last.

Havant, April 28, 1922. (Lord) TAVISTOCK.

FIRSTFRUITS OF THE SEASON.

Sir,—The birds are doing fairly well to date. Both pairs of Quail Finches are incubating. Three pairs of Zebra Finches have young.

Pairs of Long-tailed, Masked, and Rufous-tailed Grassfinches; Chestnut-breasted, and Rufous-backed Mannikins are all busy building.

White Java Sparrows, Cuban and Red-headed Finches are incubating.

One pair of Green Cardinals are incubating and another pair just about to lay I think. Pairs of Red-crested, and Virginian Cardinals are also incubating.

In fact all the birds are nesting or showing signs of so doing. Gouldian Finches and hen Violet-eared Waxbill are the only slackers so far; the cock Violet-ear is very anxious to nest, and so *was* the hen. They had the aviary to themselves for a few days in early April and had actually built and completed a nest in the shelter, when the hen became very ill all of a sudden, and I only just managed to save her—she lay in my hand as though dead, so it was a narrow shave. She is back in the aviary now and looking very fit, but shows no desire to restart nesting operations though the cock is very keen on doing so. The Gouldian Finches have only been out a few days. All the birds are very fit in spite of awful weather.

Kingskerswell, May 3, 1922. GERALD E. RATTIGAN.

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Editorial.

LATE AND IRREGULAR ISSUE OF THE CLUB JOURNAL: Once and for all your officers disclaim the responsibility for this, and the Editor is decidedly of the opinion that, even if he could spare the time, it would not be for the good progress of the Journal or the Club that he should fill the missing pages by a given date each month. The sole cause of the delay, except with the January issue, is the lack of copy—too often the publishing date comes round and no copy in, though requests are often sent round; as a consequence things have to be put through in a very hurried manner, which tends neither to correct English nor general excellence. Foreign journals have to be searched for suitable field notes, in the absence of purely avicultural matter, and the proofs only get about half the attention really called for—a request for copy brought the following reply: "too busy on more remunerative work." Well, if the Editor (the office is only *honorary* and he desires no change) takes the same stand, what will be the result? We leave the obvious conclusion to our members' common sense, but would point out that even if one be an enthusiast there comes a day when it is a case of "the last straw breaking the camel's back!" In respect of this issue—we stated the case plainly in Notices to Members in April BIRD NOTES—within a week of publishing date only one article was in hand.

Yet such is the fatuosity of our humanity that the publisher is deluged with *post cards* forsooth, complaining of irregularity, etc.—some even threatening resignation. Well, so far as the Editor is concerned let them resign if that is their sense of the fitness of things, and the sum total of their interest in aviculture.

The publisher cannot and will not in such cases (that is, when the issue has not been published) send any reply, but will always promptly deal with cases which point either to an omission or loss in post.

The case is this: we lost many of our most regular contributors in the War! Are we to conclude that we who remain have not sufficient interest or energy to fill the gap for a time—a little self-denial in the giving up of possibly well-earned leisure to the writing of an article, or chronicling the doing of his or her birds, and the case would be met. We have well over 300 members, and if 200 articles were sent in annually what a Journal we should have!

At present most of our members are more or less alseep, and only wake up when they find Bird Notes has not come to hand, and fear they are not getting value for their subscription of 20s. per year—the fact really being that they get a Journal worth fully double the subscription they pay.

As we have repeated many times members have only to do their part for the Foreign Bird Club and its Journal to be a greater success in the future than in the *best days* of the past.

Your officers have certainly not spared themselves in organising the affairs of the club to the best of their ability, but even supermen (they do not claim to be this) cannot "make bricks without straw."

Some may consider we have stated the case too strongly, and that we might have used a little diplomacy in setting forth the issue—diplomatic language is *mostly* very ambiguous, and ours is a plain simple case and its remedy the same, and we consider it best met by stating the fact in plain language, then there can be no misconception.

At the same time we do not wish any to run away with the idea that the F.B.C. is nearing its end, most certainly not, but owing to the slackness of part of our membership there is a danger of its usefulness and progress being hindered and marred. As stated, we have a membership of over 300, and this number will increase annually; surely it is not too much to ask that at least 200 members send one article about their birds and their doings annually? We only ask our members to "play the game." One of the members came to see the Editor's aviaries and birds a few days ago, who said "You are not doing as much in birds as you did are you?" The reply had to be "I have to neglect my birds and leave them to others, so that BIRD NOTES may appear month by month. *Verb sap.*"

ZOO NOTES: There have been some interesting additions recently in the section AVES.

The Prince of Wales' Collection.

3 Indian Adjutants (*Leptoptilus argala*). Nepal.
1 Southern Fruit-Pigeon (*Crocopus chlorogaster*), Nepal.
9 Green-winged Doves (*Chalcophaps indica*). Nepal.
1 Goshawk (*Astur palumbarius*). Nepal.
1 Wood-Francolin (*Francolinus gularis*). Nepal.
9 Chukar Partridges (*Caccabis chukar*). Nepal.
2 Himalayan Monauls (*Lophophorus impeyanus*). Nepal.
1 Koklass Pheasant (*Pucrasia microlopha*). Nepal.
2 Nepal Kaleege Pheasants (*Gennaeus leucomelanus*). Nepal.
5 Common Peafowl (*Pavo cristata*). Nepal.

The above arrived April 7th.

The following came to hand on May 22nd.

2 Nonpareil Finches (*Erythrura prasina*). Trenganu, Malay Peninsula.
2 White-headed Mannikins (*Munia maja*). Trenganu, Malay Peninsula.
2 Java Sparrows (*M. oryzivora*). Trenganu, Malay Peninsula.
2 Sharp-tailed Finches (*Uroloncha acuticauda*). Trenganu, Malay Peninsula.
* 1 White-bellied Finch (*U. leucogastra*). Trenganu, Malay Peninsula.
1 White-billed Hornbill (*Anthracoceros malayanus*). Pontianak, Borneo.
1 Blue-crowned Hanging-Parrakeet (*Loriculus galgulus*). Malacca.
1 Pagoda Owl (*Syrnium sinense*). Jahore, Malay Peninsula.
1 Malayan Hawk-Eagle (*Spizaetus limnaetus*). Jahore, Malay Peninsula.
2 White-necked Storks (*Dissoura episcopus*). Borneo.
* 5 Wagler's Egrets (*Mesophoyx intermedia*). Malacca.
* 1 Black-crested Bittern (*Gorsachius melanophus*). Kedah, Malay Peninsula.
2 Javan Adjutants (*Leptoptilus javanicus*). Kedah, Malay Peninsula.
2 Javan Adjutants (*Leptoptilus javanicus*). British N. Borneo.
5 Argus Pheasants (*Argusianus argus*). Trenganu, Malay Peninsula.
4 Rufous-tailed Fireback Pheasants (*Acomus erythropthalmus*). Trenganu, Malay Peninsula
1 Vieillot's Fireback Pheasants (*Lophura rufa*). Trenganu, Malay Peninsula.
5 Painted Quails (*Excalfactoria chinensis*). Trenganu, Malay Peninsula.
1 Black-breasted Button-Quail (*Turnix taigoor*). Trenganu, Malay Peninsula
5 Crowned Wood-Partridges (*Rollulus roulroul*). Pahang and Trenganu, Malay Peninsula,

3 Long-billed Francolins (*Rhizothera longirostris*). Pahang, Malay Peninsula
4 Javan Peafowl (*Pavo muticus*). Trenganu, Malay Peninsula.
1 Red Jungle-fowl (*Gallus gallus*). Trenganu, Malay Peninsula.
* 2 Grey Pigeons (*Columba grisea*). Borneo.
8 Nutmeg Fruit-Pigeons (*Myristicivora bicolor*). Moluccas.
1 Jambu Fruit-Pigeon (*Leucotreron jambu*). Kedah, Malay Peninsula.
1 Blue-tailed Fruit-Pigeons (*Carpophaga concinna*). Moluccas.
23 Spotted Turtle-Doves (*Spilopelia suratensis*). Malay Peninsula.
1 Barred Dove (*Geopelia striata*). India.
6 Green-winged Doves (*Chalcophaps indica*). India.
3 Javan Tree-Ducks (*Dendrocygna javanica*). Pahang, Malay Peninsula.
* 1 Sharpe's Crane (*Antigone sharpei*). Kedah, Peninsula.
3 White-breasted Gallinules (*Amaurornis phoenicura*). Trenganu, Malay Peninsula.
1 Water-Cock (*Gallicrex cinerea*). Trenganu, Malay Peninsula.

The foregoing and the following have been taken from the Zoological Society's *Report on the Additions to the Menagerie.*

During the month of May the additions were quite numerous, but mostly of well-known species. Among the more interesting additions we note the following:

2 Crimson-backed Tanagers (*Rhamphocoelus dimidiatus*). Colombia.
* 2 Red-rumped Hangnests (*Icterus jamaicai*). Colombia.
2 Red-underwing Doves (*Leptoptila rufaxilla*). Colombia.
2 Purplish Guans (*Penelope purpurasceus*). Brazil.

The only breeding records given are:—

May 19. 2 Leadbeater's Cockatoos (*Cacatua leadbeateri*). Parrot House.
" 31. 4 Budgerigars (*Melopsittacus undulatus*). Parrot House.

* *New to the Collection.*

Reviews and Notices of New Books.

OUR MIGRANT BIRDS AND HOW TO KNOW THEM. By E. F. M. Elms; Illustrated by many excellent photo reproductions. LONDON: Thornton Butterworth Ltd., 15 Bedford Street, Strand, W.C., 2. 6s. net.

Last year we reviewed *Our Resident Birds* by the same author; *Our Migrant Birds* is a companion work, and its plan and general arrangement are the same. Its contents are:

Migrant Birds of the Gardens, Orchards and Cultivated Districts.

Migrant Birds of the Woods, and Well-wooded Districts, Migrant Birds of the Commons, Downs, Moorland and Mountainous Districts.

Migrant Birds of the Streams, Rivers, Lakes and Marsh Districts.

The half-tone plates are well-printed on both sides and each contains four illustrations, most of which represent episodes of the nesting season. Some 29 species are so figured.

The Author states in his Introduction that: "In the two " volumes I have endeavoured to cover the whole subject of " British Birds, and it has been my intention to provide two " little companions which will enable the bird-lover to identify " without trouble, any bird he may see at any season of the " year. If this result be achieved, I shall feel that the work " entailed in compilation has been amply repaid."

How far he may have succeeded we leave the individual reader to conclude from the following extract.

QUAIL (*Coturnix communis*).

" Migrant for the greater part, coming in spring and " departing in October; but some are resident. Found less " abundantly nowadays in England than formerly. In Scot" land, distribution limited; in Ireland, rare."

" *Haunts.*—Both cultivated and uncultivated districts."

" *Plumage.*—Generally sand-brown, with buff shafts to " the feathers. Throat and collar white, margined with " black and finishing with black patch on throat. Forechest " buff. Three parallel, longtitudinal, yellowish streaks on " head; underparts white. Bill, feet, and legs yellowish " brown. Length 8in. Female paler, and minus the cres" centic collar on throat; chest more spotted. Young like " female."

" *Language.*—Call-note of male, three piping syllables, " usually written ' click-lik-lik,' or ' wet my lips.' Female's " call, a low musical disyllable. Alarm-note, much like the " Partridge's."

" *Habits.*—An expert runner, spending most of its time " on the ground. On the wing it is like a miniature Partridge " flying with rapidly vibrated and whirring wings. Usually " monogamous, the males fighting very fiercely at mating " time!"

" *Food.*—Insects, small slugs, seed and grain."

" *Nest.*—May or June. Two broods sometimes."

" *Site.*—In a little hollow scraped in the ground; among " growing herbage."

" *Materials.*—If any, a few dead grasses."

" *Eggs.*—Seven to twelve. Yellowish white, spotted and " blotched with umber-brown."

The book has been well conceived and planned with care, and, in spite of the apparently endless multiplicity of British Bird books, will form a welcome addition to the bookshelves of all students of our native avifauna. They would be excellent gift books to young people and to others also of older growth. We opine a thin paper edition of *Our Resident Birds* and *Our Migrant Birds* bound in one volume would be cordially welcomed.

Post Mortem Reports.

5 CANARIES and LAVENDER FINCH: P. J. Calvocoressi.—All acute enteritis. These birds had had access to egg-food which was stale and possibly infected with a mould This food should only be used quite fresh.

GOULDIAN FINCH: Capt. L. B. Wand.—Enteritis.

WHYDAH-BIRD and CORDON BLEU: Mrs. Dennis.—Pneumonia in both cases.

BLUE-BREASTED WAXBILL and NONPAREIL BUNTING: Mrs. Calvocoressi.—Pneumonia in the case of the waxbill. The bunting was over fat, and its lungs congested.

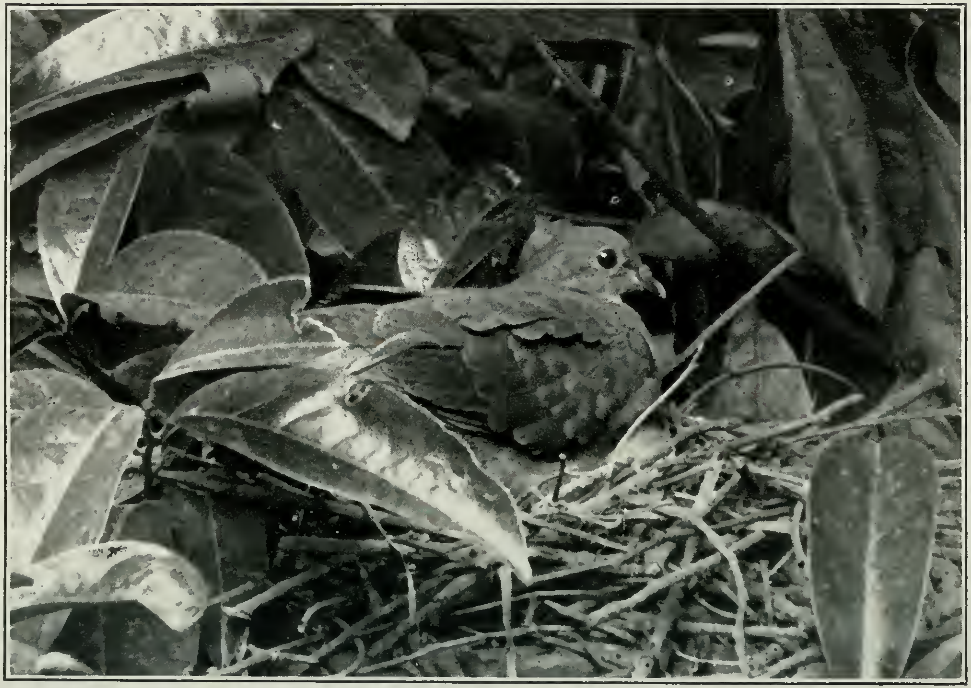
COCKATEEL: Ed. Boosey.—The bird was much too decomposed for examination.

SISKIN: T. O. Harrison.—The cause of death was pneumonia. The bird was too fat.

AMAZON PARROT: H. Westacott.—Congestion of lungs.

ZEBRA FINCH: W. H. Workman.—Pneumonia.

N. S. LUCAS, M.B., F.Z.S.,
Honorary Pathologist.



(*Photo by W. Shore Baily, F.Z.S.*)

Red Ground Dove Incubating.

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BIRD NOTES:

— THE —

JOURNAL OF THE FOREIGN BIRD CLUB.

June and July in My Aviaries.

By W. Shore Baily, F.Z.S.

At the beginning of this month most of the birds in my Waders' aviary were coming into colour. Four out of my eight Knots had assumed their reddish-coloured breasts; the cock Puffs had fully developed their queer necklaces, all totally different from each other, so that a non-birdy observer would take them to be birds of different species; the only Wader in which, so far, there has been no change is my solitary Grey Plover. Two years ago I had one of these birds that came into Of the other birds most of the Whydahs and Weavers are either full breeding plumage, and he really was a handsome bird then. in full plumage, or showing colour. The two Giant Whydahs look particularly handsome as they fly around their large aviaries. Unfortunately I have been unable to get hens for them. My Demoiselle Cranes have at last given up their attempt to produce chicks from stones. The cock has been quite savage recently. On one occasion a cocker puppy about six months old followed me into his paddock, when the cock Crane promptly came at him open mouthed and with wings outspread—a truly alarming object—and the puppy evidently thought so, as he took refuge between my legs, only to be removed by a vicious peck from the bird's beak. Verily that puppy flew, but the Crane covered the ground nearly as quickly and but for the friendly shelter of some thick bushes the little dog would have had a sad time. I was much amused, as the puppy had been rather fancying himself on the strength of being able to make my Peacock take flight, and my Adjutant Storks walk off from their dinner in a more or less dignified manner. However, I notice that he now leaves these last very carefully alone, if he happens to be in their paddock. Possibly he thinks the Crane experience may be repeated.

June 1st.—Senegal Sparrow sitting again.

June 2nd.—Californian Quail sitting. Very prolific layers, these.

June 3rd.—Two young Necklace Doves left nest.

June 4th.—African Diamond Sparrow sitting again. Cabani's Weaver sitting. The cock weaver has built nine nests, all perfect. The hen weaver, unlike most of the Hypanthornine weavers, lays white eggs.

June 5th.—Cuban Finch and Cape Sparrows sitting.

June 6th.—Mistle Thrush nesting again. This makes the third time, and she has now laid thirteen eggs this season.

June 7th.—Six little Mantchurian Pheasants hatched. These are extraordinary tame little birds, and they grow very fast and become great pets.

June 8th.—Snow Bunting nesting in coco-nut husk. A queer place for such a bird. The nest was neatly built and lined with hair. Unfortunately at time of writing no eggs have been laid. Last year one built a nest in a box, which was lined with feathers.

June 9th.—Grey Singingfinch sitting.

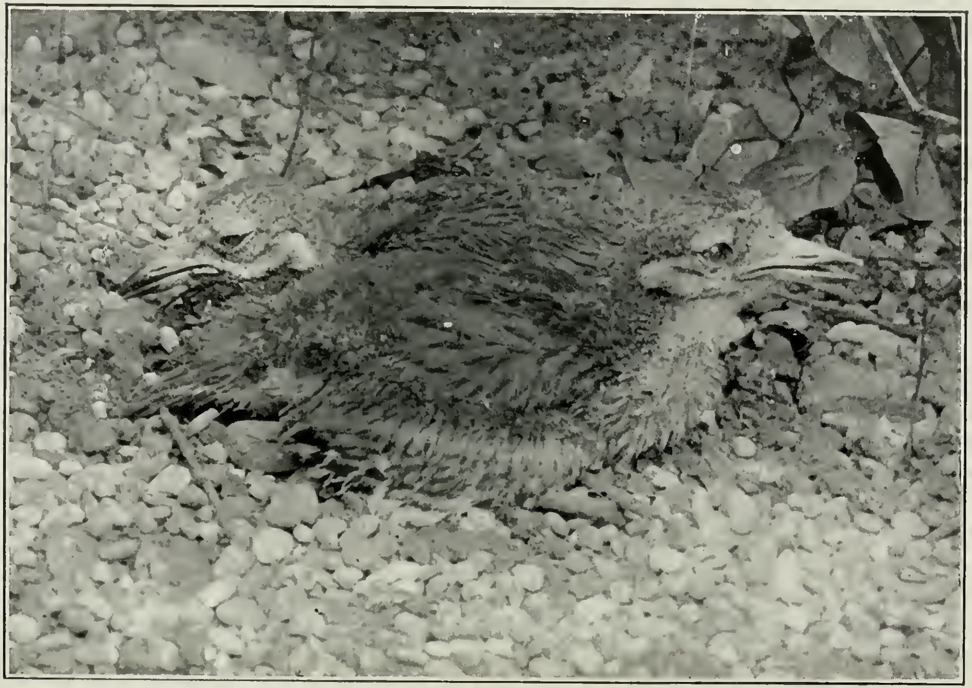
June 10th.—Tinnamou cock calling again. Common Quail nesting. I have hunted long for this bird's nest but so far without success. I think that my New Guinea Quail must also be nesting, as the cock has been calling. These two species are very shy.

June 11th.—Song Sparrows nesting. I have two pairs of these birds in adjacent aviaries, both of which I feel sure have nests. They nest on the ground in very thick cover, but, as they are very secretive in their habits, the nests are very difficult to find. The cocks are continually fighting with each other through the wires.

June 12th.—Two young Tinamous hatched under hen.

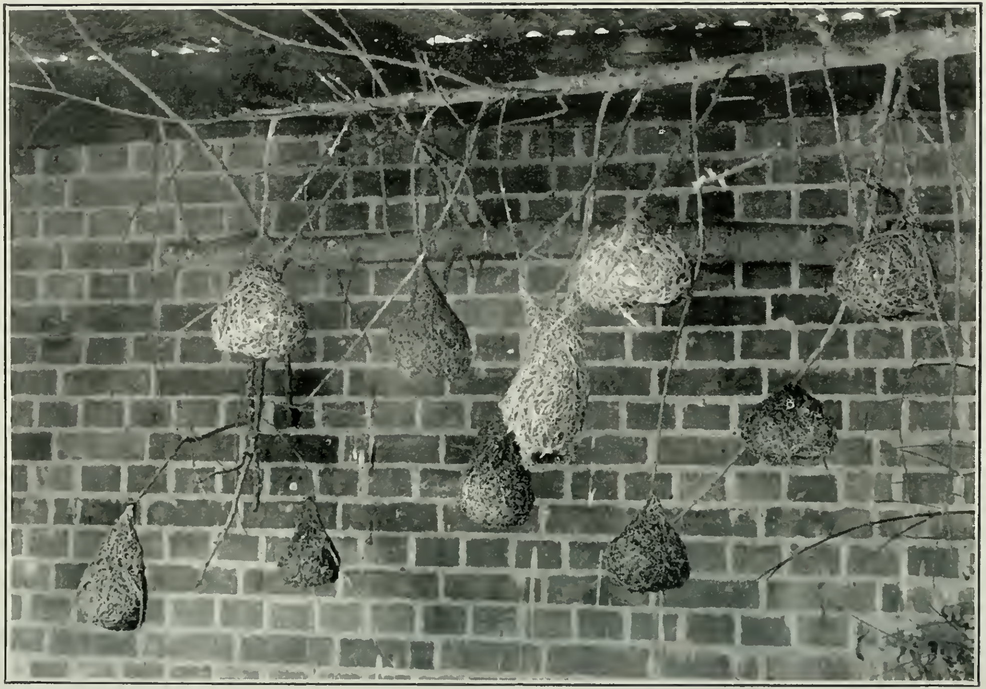
June 13th.—Algerian Chaffinch sitting again.

June 24th.—Second pair of Misto Seedfinches sitting.



(*Photo by W. Shore Baily, F.Z.S.*)

Young Stone Curlews.



(*Photo by W. Shore Baily, F.Z.S.*)

Cabani's Weavers' Nests—all Woven by same Cock.

Nest in centre of thick bunch of grass.

June 15th.—First pair of Misto Seedfinches hatched four young.

June 16th.—Mantchurian Pheasant sitting.

June 17th.—Cabot's Tragopan hatched three young Horned Guinea Fowl. Four of these eggs had been placed under her, as her own eggs were infertile.

June 18th.—Tinamou sitting on six eggs.

June 19th.—Twite sitting on four eggs. I have had two pairs of these birds in my large aviary for three seasons, and this is the first time either have nested. The nest is in a willow about three feet from the ground.

June 20th.—Second pair of Misto Seedfinches hatched. Red-billed Weaver sitting; the first time in these aviaries that these birds have laid. Red Ground Dove sitting.

June 21st.—Yellow-throated Sparrows sitting again. New Guinea Quail hatched three young. These were about the size of Bumble Bees and much the same colour. The first to be born in England, I believe

June 22nd.—Cape Sparrow hatched. Californian Quail sitting.

June 23rd.—Diuca Finch laid in Snow Bunting's nest.

June 24th.—Young Chingolo Sparrows left nest.

June 25th.—Snow Buntings nesting again. This time in a box.

June 26th.—Crimson-crowned Weaver laid; this is also a first occurrence in these aviaries. The hen was only purchased at Gamage's a week ago. The cock completed the nest in a day. Eggs pale blue, like a Wheatear's, and nearly as large.

June 27th.—My keeper brought me two young Stone Curlews. I couldn't get them to feed, and although I hand-fed them they did not survive; this is the second failure I have had with these birds.

June 28th.—Bramble Finches sitting. Red-fronted Brazilian Sparrows nesting. The cock has a rather nice song, and a very curious display when courting the hen. I do not know their scientific name.

June 29th.—Stripe-headed Grosbeak sitting again. I am afraid that her eggs will be again infertile, although her Misto Seedfinch husband pays her a good deal of attention. Received to-day a very fine young pair of Spoonbills from Rotterdam. Most interesting birds.

June 30th.—Fifteen young Horned Guineafowl left nest. Saw two young Plumbeous Quail to-day for the first time since they were hatched. Appear to be growing nicely.

July 1st.—Four young Misto Seedfinches left nest.

July 2nd.—Snow Bunting laid.

July 3rd.—Black Tanager sitting.

June 4th.—Two young Misto Seedfinches left nest.

July 5th.—Three Cuba Finches left nest.

July 6th.—Bearded Tit sitting. Another case of infertile eggs, as my birds are both hens.

July 7th.—Visited the Duchess of Wellington's aviaries. These fine aviaries have been designed by the Duchess herself, and constructed under Her Grace's personal supervision. Besides being extremely ornamental, they are most suitable for the different kind of birds contained therein, as there is water, growing grass, shrubs, etc., in all of them. I was particularly struck with the fine flock of Giant Whydahs, most of which have been bred in the aviaries. The pretty Indigo Bunting was also very much in evidence, and one or two pairs have already nested; but the principle event this season is the hatching out of a nest of young Blue Tanagers. It is to be hoped that Her Grace will succeed in rearing these. An account of this would greatly interest B.N. readers.

July 8th. Five Tinamous and one Black-winged Pea Chick hatched.

July 9th.—Senegal Sparrow hatched.

July 10th.—Cape Sparrows left nest. One of the young ones appears to be abnormal, as it has a broad white patch across the wings.

July 12th.—Russ' Weaver sitting.

July 13th.—Red Ground Dove sitting.

July 14th.—Orchard Finch sitting again. Plumbeous Quail chicks now strong on wing.

July 15th.—Tinamou sitting again. Whilst looking for nests I stepped on and crushed three young, day-old Misto Seedfinches. These birds make their nests in the long grass, and cover them over with the growing grass blades. The

(*Photo by W. Shore Baily, F.Z.S.*)

Mistle Thrush Incubating.

first lot of young ones are now independent of their parents The first time they have been reared in England, I believe.

July 16th.—Five young Californian Quail hatched.

July 17th.—Twite hatched four young ones. This is my second pair. The second nest of my first pair was destroyed by other birds. The same fate befell my Brambling's nest.

July 18th.—Misto Seedfinch hatched three young.

July 19th.—Seven Buffalo Weavers and three Gambian Sparrows arrived from Dr. Hopkinson, who brought them over with him from the Gambia. They are most interesting birds and will, I hope, survive, and in due course go to nest. These birds make communal nests, and it would be very interesting to get photos, etc., of these in an aviary. It was very good of Dr. Hopkinson to send them here.

July 20th.—Young Senegal Sparrows left nest. This is also for the first time in these aviaries, although I have had many of these birds.

July 21st.--Crimson-crowned Weaver sitting on three eggs.

July 22nd.—Plumbeous Quails have now driven off their young and are evidently looking for a new building site. The young ones appear to be a pair, but I cannot be sure of this without handling them.

July 23rd.—Four young Californian Quail hatched. Buffalo Weavers died. Whether this was due to a change of diet, too much live food after their long abstinence from this on their voyage over, I am unable to say, but it is very disappointing. They all lost the use of their legs before succumbing.

July 24th.—Left for summer holiday, so record for the rest of the month not available.

Notes on Jungle and other Wild Life.

By Dr. Casey A. Wood, M.B.O.U.

(Continued from page 111.)

Two voyages to the West Indies have convinced me that the cheapest and most satisfactory method of really " seeing " that section of them known as the Lesser Antilles, is to organize a party of not more than four congenial souls unafraid of the sea, and set sail from New York or Halifax for Trinidad or Demerara, visit in the usual orthodox fashion the ports of call at the various islands. This part of the plan insures an introduction of considerable value to the itinerary subsequently to be followed, permits the traveller not accustomed to tropical life to become more or less acclimated, and emphasizes the enjoyment of the true adventure. This last consists, briefly, of engaging and provisioning one of those beautiful schooners whose graceful lines and lovely white sails hold the attention of every visitor to the Caribbean. The ideal vessel is, of course, clean, well manned, roomy and properly supplied with the necessaries and some of the luxuries of West Indian travel. For details consult either of those most courteous and well-informed of men, our Consuls at Demerara or Trinidad, whence the expedition should set out. Early in January is the best time to start; and the excursion will occupy about two months—but oh! the wonders that may be encountered in that short space by the right kind of people! Sailing leisurely along, one may visit and stay as long as one likes, not only at the usual points of interest, but an opportunity is also given to explore comfortably and easily fascinating localities, peoples and animals otherwise inaccessible. The steamship companies offer an excellent chance to spend a few weeks in this enchanted land, but they, not being run for recreation alone, are obliged to consider profitable freights, harbor facilities ,etc., that do not always jibe with one's desires to visit islands or ports not on their schedules. On the other hand, the independent schooner-yacht goes everywhere. Just think what it would mean to visit this far-stretching archipelago—these Antillean Sporades and Cyclades and to sail the blue ocean that flows between them, set in everlasting summer. Few seas furnish as many historical memories, natural beauties, curious animals and remarkable incidents as the long semi-circle of islands and islets that seem to have been scattered broadcast by some mighty sower between the Virgin Islands and Sombrero Light, away north, and Trinidad, almost within gun shot of the Venezuelean coast.

Two institutions almost peculiar to Georgetown bear a possible message to those who do not think it necessary to provide a substitute for the " poor man's club" when prohibition is adopted by a country previously addicted to the consumption of various forms of alcoholic beverages. This new growth is well described by the author—now unfortunately passed on—of "Georgetown Vignettes." He begins his clever description with a quotation from the repertory of the Demerara Laureate as follows :—

When mah heart is sore and weary
And mah love is growin' cold,
When the outlook is so dreary
An' de chile she gettin' bold—
Just turn to you " bub " in de evenin' !

The author then assures us that to " define what are the ingredients of a " Bub " drink does not require the scientific knowledge of a professor. A " bub " is composed principally of an infinitesimal portion of milk, with a maximum quantity of water, a fractional part of ice, a few grains of nutmeg and ten drops of syrup. In fact, it has been known where the attendant, when in a bad mood, has reduced the drops of syrup aforesaid to seven.

Running the " bub " a close race in popular favour is the " shave ice " drink. What is a " shave ice ?" This is purely and simply a piece of ice shaved by a sharp " planer " into a glass and besprinkled with syrup. A large glass costs one penny ; while a half tumbler's worth can be purchased for a cent. Its chief charm lies in its ability to slake the thirst of a throat wearied with the imbibings of too much " coolie throw down," or in other words our familiar friend—cask rum !

Having let our readers into the mysteries of " bub " and " shave ice " manufacturing we pass on to treat of the attendants. These depend primarily on the locality where the saloons happen to be situated. In High America and Hincks Streets, three of the chief thoroughfares of the " bub " and " shave ice" monopoly, the lady attendants are chiefly of the Hindustani race, while in the purlieus of Charlestown, Bourda, Queen, Regent and Camp Streets, the attendants are indirect descendants of sons of Ham.

In each of these " bub " shops scattered all over the town the assets of the proprietors are comprised chiefly in the ability of their attendants to carry to a successful issue promiscuous flirtations with every Johnnie who comes along. Be the patron a young Barrister-at-Law out for a night's fun, or a "centipede" just eleased from prison, after serving a term for carrying a stick for the purpose of terrorizing the public, her smiles, airs, and graces must be equally distributed. An attempt at favouritism has been known to end disastrously.

These "bub" shops undoubtedly serve a useful purpose. Wayfarers, after an evening's jaunt, have found them handy for providing a smack composed chiefly of two or more slabs of bread and minute portions of ham plastered between. A peremptory call or so at the blushing damsel behind the counter may or may not produce a daub of mustard with which to give the horse flesh a slight flavour. As an indication of how much these "bub" shops are favoured by high and low alike, it may be mentioned that the writer of this sketch once received from a now defunct solicitor an invitation to lunch. The offer was accepted, and the party at once "adjourned" to the lawyer's office. Visions of a sumptuous feast, ordered from the Victoria, naturally floated before one's eyes. But all speculation was quickly set at rest when a smiling "bub" shop attendant marched in with a waiter whose spotty cloth covering hid two large glasses of "bub" flanked by two slabs of bread, ham and mustard.

The "bub" was gratefully received, for a varied experience has taught one that it is sometimes polite to be thankful for small mercies, even though they take the form of penny "bubs!"

Now comes the sequel. With the abnormal growth of these small saloons there has come a corresponding decline in the craving for strong waters. As a matter of fact to such an extent have things come in this respect for the spirit dealers, that there is now on foot a serious project, having for its aim a monster petition to the Governor praying that the license of the "bub" dispensers should be used. It has also been stat that owing to the wave of temperance now sweeping over the community the attendance at places of worship in Georgetown has increased ten per cent. Even habitual drunkards, now few in number, look as they pass with longing at the cool refreshing glasses of " bub " as they are dispensed to patrons who in the now remote past used to line up ten deep before the counters of the rumshops. The spirit dealers like not the outlook, and only in the assistance of the Government, whom they assume to be their ally, do they hope to obtain relief.

It occasionally happens that a planter whose estate is far distant from the conveniences of town or village must perforce be emergency guide, friend and doctor—not to mention minister and priest—to his peasant employees. Bearing on this fact I recall that I took into dinner, on one of the islands, a very attractive young woman who, from her war experience in France, acted in a medical capacity to the ignorant employees on her husband's plantation. I asked her how she managed the eye diseases. " Oh, I have had very few of them, and they generally yielded to treatment in a short time. My last case may interest you. One morning, bright and early, a coloured man, after trying—as they generally do—all the domestic remedies at hand, came to see me with a badly swollen eye and face. I diagnosed the trouble as an abscess of the eyelid, and thought a poultice might help. As I had run out of linseed meal I wrapped up for the man a large slice of white bread soaked in milk and sent him on his way rejoicing, with directions to apply the remedy for one day and then to report. To my surprise he returned the same afternoon evidently much improved; it seemed as if the abscess had " broken." Asked how long he had kept the poultice on his eye he confessed that he thought it was to be taken internally. ' Berry good; berry good; me like him; me eat him,' and in view of its miraculous effects I soaked him another slice which completed the cure, and established my reputation as a doctor of wonderful healing powers."

Almost every island in the Antilles has its Botanic Gardens, each one of them presenting attractions all its own; and none should be neglected by the tourist. E. and I liked especially the lovely little tropical park at St. Lucia, and were greatly impressed by the much larger and better kept Gardens of Dominica where especially abide not only everlasting spring and never withering flowers but also pretty nearly every curious tree and shrub under the tropical canopy.

Taking it all in all, perhaps the Demerara Botanic Gardens are the most attractive. Nowhere else can the peculiar tropical vegetation of South America be studied to better advantage, all artistically disposed along miles of well-kept drives and walks. Palms there are in great variety and abundance, including the majestic royal, the somewhat similar cabbage palm, the Eta, the fan or traveller's (so-called because of the supply of water to be found at the base of its leaves) palm, and many another curious form.

The glorious Victoria Regia lily is a common weed in British Guiana, was first discovered here and at one time flourished in some of the drainage canals that crisscross the city of Georgetown. When it was, for sanitary reasons, decided to fill these trenches this huge water-lily was banishel to the Gardens—its ponds and canals—where it may be seen by the hundred, with its immense leaves, enormous buds and wonderful flowers. Here, too, one sees other water lilies of great size and beauty—the lotus and vast numbers of the red, white and blue *nymphea*. Adjoining the Gardens proper are 40 acres of experimental nurseries where certain economic products—sugar-cane in particular—likely to be of value to the colony are grown. As might be expected in this land of orchids, the orchid house is often redolent of bloom, and is always well worth a visit.

The traveller will be charmed by the animal life of the Gardens, and especially by the home-coming flight of hundreds of blue herons, white egrets, hawks and other birds, best seen (from 5-30 to 6 p.m.) just before they settle for the night in the high trees of the "Island"—a small bird sanctuary entirely surrounded by a canal or moat. This body of water is filled with flowering lilies whose pads support numerous large, long-toed, brilliant-coloured jacanas and other water-fowl that run along the wide leaves, while flocks of Night and Day herons call and squabble for a favourite resting place in the branches above. All things considered, this sight alone is worth a trip to British Guiana, and it is made possible by a sensible bird protection law strictly enforced.

In these same gardens is to be seen, among other animals, that curious amphibian, the manatee or " sea-cow "—not cooped up in a cage but swimming about in the miles of canals and ponds that supply the Gardens. Come any morning about 7-30 and ask a keeper " where the manatees are feeding."

(To be continued.)

A Cuckoo Episode.

By Capt. J. S. Reeve, F.Z.S., M.B.O.U.

The following may be of interest to our readers:

A Pied Wagtail built as usual on the house here (Lincoln), close to my aviaries, but the nest was destroyed and they built again. During this period, on May 18th a Cuckoo was seen to alight on the creepers close to the nest; on 24th there was one Wagtail's egg; on 25th a pair of Cuckoos were in the garden, both " cuckooing," and one also making the " water-bubbling " sound; one of these was seen to fly to the house, but, unfortunately, was not watched! On 27th, at 1 p.m., I examined the nest and found two Wagtail's eggs and one Cuckoo's, this latter being of a rotund shape with markings of a greenish hue. A friend arriving that afternoon, who was interested in birds, at 9 p.m. I showed them to him. I examined the nest next day at 1 p.m., when lo and behold! the Cuckoo's egg was gone, the nest quite undisturbed, and a third Wagtail's egg in it! On 29th there were four Wagtail's eggs, and the bird duly commenced to sit on them. What happened to the Cuckoo's egg? Is it possible that the Cuckoo saw me twice go to the nest on 27th, and removed the egg? I searched the whole garden over and found several other nests—Linnet's. Thrush's, Flycatcher's, and a Lesser White-throat's, but no Cuckoo's egg, and I know of no other pair of Wagtails near at hand. I have since been told of the case of a Cuckoo laying in a nest in an open greenhouse, and of her being found there in the greenhouse a day or two afterwards. It is, I believe, on record by Dr. Chance and others that the Cuckoo has been known to take a subsequent interest in its eggs and even young when hatched, but has it ever been suggested or recorded that they will remove their eggs in case of danger? It does seem a possibility. I may add that on June 24th I found two Hedge Sparrows' nests, each with three eggs and a Cuckoo's—one forty-seven yards from where the Wagtail's nest was, and the other seventy-seven yards on beyond the first, all in the same garden; the nearer of these two clutches was slightly incubated, the Hedge Sparrow's eggs being of a very deep blue type and small; the other clutch was perfectly fresh, though the bird was sitting, but they were of a perfectly different type, very long and light greenish-blue, and might almost have been taken for Wheatear's eggs. The two Cuckoo's eggs were of entirely different type and assimilated more or less to their respective clutches, one being oval and lightly marked with grey, the other elongated and well marked with brown. The former is about an inch long, and the latter seven-eighths of an inch. Each exceeds by about one-eighth of an inch the length of the eggs in its clutch. Again I searched everywhere within two or three hundred yards but found no more Hedge Sparrows' nests and no more Cuckoos' eggs!

Another deduction which may seem to be drawn from the first part of my story is that the Cuckoo finds the nests in the first place by seeing the birds building.

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Stray Notes of the Season.

By Wesley T. Page, F.Z.S., M.B.O.U.

These indeed must be very much stray notes, for I have been so occupied with many things that I have frequently only seen my birds once during the week. Owing to the adverse and frequently changing weather conditions, there is much more of failure to chronicle than success, even with such species as usually triumph over our inconsequent English weather, and I fear the same record will prevail in many (most) aviaries this season.

Doves, which usually do well here, have only up to the present produced a single youngster successfully reared; still, with all the disappointments attendant upon aviculture, it has been the solace and interest of many an hour during the many depressing periods of recent times.

My birds are not as numerous as they were; accidents, etc., have robbed me of many rarities and pals, and I have made but few additions, so that to-day there are more odd birds in the aviary than mated pairs. Many of the odd ones are patriarchs with a history and old friends too, so they remain, till in the fulness of time they travel West, to the happy hunting grounds of the feathered tribe. Who knows? Perchance at some future time we may meet again upon a happier shore!

My newest acquisitions among the *Columbidae* were a pair of Cape Turtle Doves (*Turtur capicola*) kindly presented to me by Mr. Guy Falkner, being part of a consignment personally brought over by him about a year and a half ago. In general appearance they much resemble the common Barbary Turtle-Dove, but their plumage is a much greyer and darker tone. They are handsome birds, and a species I had not previously kept. They came to hand in late summer last year, soon settled down and made themselves quite at home in my largest aviary, where there are five other species of doves. They passed the winter without apparent discomfort, and this spring found them in perfect health and plumage, and were soon sparring with other doves for the more suitable nesting sites; this continued for so long a period that I was contemplating removing several of the doves to another aviary, when one morning in June my attention was directed to the top of a mass of foliage (Polygonum climbing up one of the roof standards), by one of the Cape Turtle-Doves flying therefrom. An examination revealed the usually sparse, fragile nest and in it a fully fledged young bird which left the next day, and is now (July 26) disporting itself in the aviary almost indistinguishable from its parents, who are nesting again. The young bird resembles its parents in plumage pattern but was of a slightly warmer and darker hue, and was in possession of a partial neck ring when I saw it in the nest. It only received the attention of what I took to be the male parent for seven days, and was then entirely on its own.

I should say that neither in plumage nor contour have I been able to detect any difference in the sexes, and it is during courting displays that I know " t'other from which.

I regret my brother was not available to take a photo of the young bird in the nest, for, though it was not a rare episode, it made a very pleasing picture indeed, the nest being almost hidden in the convolvulus-like foliage. It was just to the end of the path used during daily visits to replenish food supplies, situate three or four feet above one's head.

The Indian Green-wing Doves (*Chalcophaps indica*) are incubating. Though, perhaps, one of the species longest known to aviculture it is one of the most beautiful of the *Columbidae*. Its general colour is deep wine-red, with lustrous wing of deep rich grass-green, which vary from copper to deep blue-black under the play of light; the beak and feet are red—lovely creatures in a roomy garden aviary. I have kept the species for many years and found them hardy and long-lived—ten to twelve years being by no means an uncommon period.

Though I have bred this species on several occasions, and as recently as 1920, failures have been more numerous than successes, not that they are bad sitters or parents, but rather because of wasting their efforts in attempts to construct nests on impossible natural sites, though numerous artificial platforms were scattered about in sheltered positions all over the aviary—their predilection evidently being for a naturally constructed nest amid the branches of some tree or bush. Apparently, at last they have constructed one to their liking, in a position where any human would have said a nest was impossible—the query is, will the fragile, sticky platform they have constructed stand the strain of storm, incubation and brooding of the young?

The Vinaceous Turtle-Doves (*Turtur vinaceus*) are no better, and so far have not got beyond trying to construct nests amid the branches, which the alighting of other birds on one of the branches invariably disperse. This was the case with this pair last season.

Red Mountain Doves (*Geotrygon montana*), are very handsome and hardy doves, comfortably spending the whole year out of doors, and usually bringing up one or two broods per annum. So far they have one youngster independent this year, and are now looking for a fresh site for another nest. They spend nearly the whole of their time upon the ground, have rather a mournful call "hoo-hoo," but in every other respect are pleasing and attractive occupants of the aviary.

I have put these dove episodes out of their proper sequence, and I will now give a few other episodes in their regular order. I had better preface my remarks by stating that last autumn I put in the aviary two Hedge Accentors and four Chaffinches, and this spring a hen Goldfinch procured from one of the villagers; the others were captured on my holding. I had intended to capture a cock Goldfinch—these are plentiful on the holding, but a pressure of duties prevented me till the wild birds were paired up and then I would not. Also there are a number of hybrid Himalayan Siskin × Border Canary in the aviary, which have been there several years; up to the present they have nested several times, but without result—all the eggs have proved infertile, apparently they are barren when mated *inter se*, but would doubtless produce young if mated either with a Himalayan Siskin, or a Border Canary.

The first episode I noticed was a Hedge Accentor's (*Accentor modularis*) nest, containing four blue eggs, of the usual kind without markings. The nest was quite typical, cosily lined, a perfect picture of bird achitecture; it was in rather an exposed position, in a fork of a cupressus bush by the side of a path. They were only left in undisturbed possession for a few days. I suspect the spoiler to have been either a Pekin Robin or Pope Cardinal. The mischief was evidently only recent when I noticed it, for the interior of the nest was a mass of broken and partly-eaten eggs, quite fresh and still in liquid form. I think they are nesting again, but some of the bushes are so overgrown with wild convolvulus that it is quite impossible, without undue interference, to ascertain all that is taking place in the aviary at the present moment. Many years ago a brood of Accentors were reared to maturity in my aviary, and I had a hankering to repeat the success.

The Chaffinches (*Fringilla coelebs*) too, I desired to breed, as, though young have undoubtedly been reared in captivity, they have been unobserved successes, and I wished to have the pleasure of recording a fully observed success. One of these pairs supplied the next episode. They constructed a nest of hay, grass-bents and fine rootlets; it was exactly similar to what we are accustomed to see in the country-side in every respect, except that it lacked lichen, none of which I supplied; in all other respects it was a replica of one I took from the raspberry canes on my holding. They were very secretive in their operations, and the nest was completed and one egg laid before it was discovered; five days later it contained four eggs, and incubation had commenced. The nest was placed in a mass of Polygonum creeper, two feet below that of the Cape Turtle-Doves. Incubation lasted thirteen days, when four lusty young fledglings were observed in the nest—all went well for four days, but on the night of the fourth day there was a terrific wind storm accompanied by torrential rain, and when I made my visit to the aviary at 9-30 the next morning two dead fledglings lay beneath the nest, and two dead in the nest—they were well-grown and well-nourished for their age.

The nest was then deserted, and I am assured that both pairs now have nests, but I have not discovered them amid the wild tangle of bush and convolvulus.

Next I saw one of a pair of Mealy Redpolls carrying bricks for Redpoll castle, but the chosen site was not the final one, for the home was not completed; but I have since seen them carrying nesting material into a wild tangle of creeper and bush, so presumably their home will be completed there—may be it already is.

So far as I am aware Java Sparrows, Silverbills, Pekin Robins, Violet-eared Waxbills, and various weavers have not seriously built as yet, though some of them may have young hidden among the tangled growth.

Owing to a series of mishaps last summer my collection of parrakeets consists mostly of odd unmated birds.

By the kindness of Mrs. Reed I have secured a mate for my Blue-fronted Amazon (*Chrysotis aestiva*), and one of them now spends a lot of its time in the nest log, so once again one hopes.

The same applies to pairs of Rosella Parrakeets (*Platycercus eximius*) and Cactus Conures (*Conurus cactorum*), but the happenings are as yet " in the lap of the gods."

A fine pair of Black Cassiques (*Cassicus* spec. *incert*) are in the pink of condition, but, so far as I am aware, have made no attempt to go to nest, though mating is of frequent occurrence. These are grand birds, glossy black with purplish reflections, which latter vary considerably according to the play of light. They are birds of character, and of fascinating demeanour—there is not a dull moment when one has a spare half hour to spend in front of their aviary.

I am in want of a hen Blossom-headed Parrakeet, cock Alexandrine Parrakeet, and hen Pekin Robin, if any member can accommodate me with acclimatised specimens to complete.

Though, of course, breeding is our paramount aim, it is not the sum total of the pleasures of aviculture; it certainly supplies most of its disappointments. The economy of bird-life that leads up to this central fact, surrounds it, and follows after it, in all its varied details, rewards careful observation with unending interest and pleasure as the season runs its course, even in those cases when full breeding success is not attained.

I have tried to say nothing as interestingly as possible; will not some of my fellow members copy my bad example, and tell us of the doings of their birds, even if they have only commonplace species?

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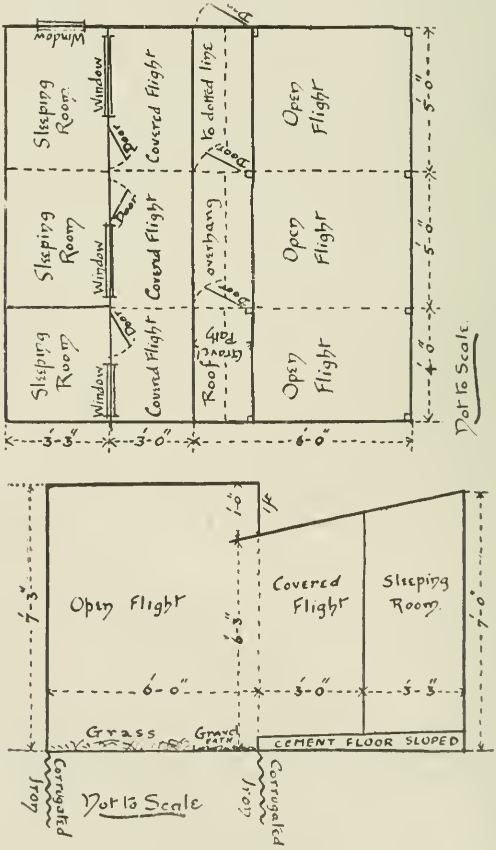
Aviary Notes from Northern Ireland.

By W. H. Workman, F.Z.S.

Some of our younger members may be interested in a few notes on my new aviary and a description of the various little fitments which I have included in it, and, at the same time, I feel I am complying with our good Editor's wish for more and more copy for the magazine, which has done so much to keep alive the avicultural hobby during the long years of the war and after, when we were unable to get or keep foreign birds and so turned our attention to the uninteresting but useful hen, so I turned one of my aviaries into an intensive fowl house, and it is this that I now have had reconstructed, and which I wish to describe.

The fowl-house was a lean-to affair, of about 14ft. long and about 6ft. wide, having an over-hanging roof of, say, another foot, with a good solid cement floor. This I pretty well pulled to pieces, taking away the front and division, leaving only the one end, roof, and cement floor. I then got the carpenter to divide the house longtitudinally, into two divisions, viz: a shelter for night, a roofed-over part which I call


Window
Sleeping Room
Window
Door
Covered Flight
Roof to dotted line
Door
Open Flight
5'-0"
Sleeping Room
Window
Door
Covered Flight
overhang
Door
Open Flight
5'-0"
Sleeping Room
Window
Door
Covered Flight
Roof
Gravel Path
Open Flight
4'-0"
Not to Scale
3'-3"
3'-0"
6'-0"
7'-3"
1'-0"
Open Flight
6'-3"
Covered Flight
Sleeping Room
7'-0"
6'-0"
3'-0"
3'-3"
Grass
Gravel Path
CEMENT FLOOR SLOPED
Corrugated Iron
Not to Scale
Corrugated Iron

Plan and Elevation.
Mr. W. H. Workman's Aviaries.

covered flight, putting doors between and windows—but the plan will give my readers a much better idea of my design, in which I was greatly influenced by the bird houses at the Zoo, and in a very small way I tried to copy them.

This, you see, gives me a good place to put food for the birds, but more of this anon. We now proceeded to make the flight. This is made of half inch mesh wire lapped together so that looking through the front and sides one is not bothered with great lines of three inch timber spoiling the view. The flight therefore is about 14ft. x 6ft. x 7ft. high, and like the house is divided into three divisions (see plan), with communicating doors of light wood framing covered with half-inch mesh wire. From the elevation you will see that the roof projects into the flight about one foot; this certainly makes it more difficult to, say, catch a bird or drive a strange bird in at night, but on the other hand it is a splendid place for them to sit and sun themselves in the morning, as it gets very warm on this roof, and they are protected from draught by a deep board running along the roof on its edge, this board taking the wire netting of the flight.

The next thing I had to think out was the arrangement of the flight. I first made a gravel path running straight through next to the cement floor of the covered flight. Then I got the gardener to get me some large and coarse grass sods and we planted them with an edging of boxwood. As the weather turned wet we had no trouble with the grass or plants. After I got the sods down I paid a visit to a Nursery, and there I was much disappointed to find I could not get a few firs as I was told that at that time of year (June) they couldn't be moved, but I secured some fine Box trees, so I put a small one and a big one in each flight, and they never looked back in spite of warnings by various gardeners.

Our next consideration was perches, so I cut down a few Sycamore seedlings, when the top parts were cleaned of leaves; these made beautiful shapely perches, and the birds took to them at once. Some I hung up to the rafters of the flight, others I nailed up to the corners. Next I cut a lot of small branches, which I nailed up in various parts of the covered flight and sleeping compartment, putting in between various nesting boxes of different sizes, suitable for the various birds, which I will describe later.

Now as to feeding and drinking arrangements: I made three trays—one for each division—about 14 inches square, and 4 inches deep, putting screw eyes at each corner to which I attached by wire hooks four pieces of small sized picture chain. These all came to a hook in the centre which again is fastened to a screw eye in the roof. Into these trays I put glass bowls (old preserved meat bowls) of seed, and the birds drop the chaff out of the bowls into the trays, so the floor, etc., is kept very clean. It then becomes an easy matter to tilt up the trays of chaff into the bowls and riddle out the good seed that is left. Refill the bowls with fresh seed and replace them in their trays. For soft food, etc., I use the little delph pots that one gets potted shrimps in; they are so easily cleaned and kept fresh.

For water I use enamelled steel dishes of various depths to suit the birds; they are white so one can keep them spotless, and thus one is sure of the birds getting fresh drinking and bathing water.

For nesting boxes, I made a number from all sorts of suitable wooden boxes drilling a hole with an "Extension Bit"—by the way a most useful instrument because it drills a hole of a diameter of ⅞in. up to 3 inches, and comes in useful for all sorts of purposes connected with the aviary.

The account of my birds must form another story.

Editorial.

Breeding of Leadbeater's Cockatoo (*Cacatua leadbeateri*). One does not often hear of cockatoos breeding in captivity, but at the present time in the London Zoo, at the rear of the Parrot House, is to be seen a happy family of Leadbeater's—the parent pair and two babies. This species is one of the most, if not the most beautiful, of the large genus *Cacatua*. Only on one occasion previously has complete success been attained in breeding the species in the Gardens, when one or two young birds were fully reared in the large aviary (now given up to monkeys) on the banks of the canal, almost opposite the Parrot House. Returning to the present success, both parents shared the duties of incubation, and both were alike assiduous in feeding and caring for their progeny. The young birds are strong and lusty, but, at present, more given to climbing than flying.

One such episode as the above compensates the aviculturist for the many disappointments of their cult. The sights of such an episode through all its varied details of courtship, love, incubation, and rearing the young, are never-to-be-forgotten-ones. While the sight of these fine birds in the full excitement of sexual ardour, with the glorious crests upraised, and wings and tail outspread can be better imagined than described, and must be seen to be fully appreciated.

It is a notable success and we heartily congratulate those concerned therein.

SEASONAL NOTES: The season, which opened so hopefully in several aviaries, has not borne out its earlier promise. The malignant attitude of the weather towards aviculture has caused the loss of the bulk of the young from the first round of nests.

Mr. H. E. Bright, of Woolton, writes: " The birds have done very badly lately, have lost practically all my young ones through the cold and wet, and the Hangnests have gone into moult. I have a couple of young Turtle-Doves, which may not have been bred previously—Isabelline Turtle-Doves Rogers called them, and he says they are new."

We think the Isabelline Turtle-Dove has been bred at the London Zoo.

It will also be seen from the notes of Messrs. W. Shore Baily, Capt. Rattigan, W. T. Page and others, elsewhere in this issue, that the unfavourable conditions so far this season have turned many very probable successes into failure; we must hope that the last half of the season will be better than the first portion has been—August and September are often very fruitful of results in outdoor aviaries.

Even at the London Zoo results have been less than usual, though two notable successes have been attained (noted elsewhere). The following breeding successes and more notable arrivals are extracted from the Society's *Report on the Additions to the Menagerie* for June:

Breeding Successes.

8 Carolina Ducks (*Lampronessa sponsa*).
1 Chilian Teal (*Nettium flavirostris*).
2 Sacred Ibises (*Ibis aethiopicus*).

ARRIVALS: These have been quite numerous among the smaller fringilline and ploecine species, but mostly of well known species—we are pleased to note the influx of several species which have been really scarce during the war and since, for which reason we include them in the list.

1 Greater Amethyst Sunbird (*Chalcomitra amethystina*).
1 Malachite Sunbird (*Nectarina famosa*).
6 Pink-winged Rosefinches (*Rhodospiza obsoleta*).
* 1 White-crested Hornbill (*Ortholophus leucolophus*).
1 Crowned Hawk-Eagle (*Spizaetus coronatus*).
* 1 Apure Tovi Parrakeet (*Brotogerys jugularis apurensis*).
10 Painted Quails (*Excalfactoria chinensis*).

* *New to the Collection.*

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Correspondence.

STRAY NOTES.

SIR,– Not much of interest to record re my aviaries, but such as they are, they may possibly be of some interest.

BEARDED TITS (*Panurus biarmicus*). My pair nested and laid five eggs in a coco-nut shell, all clear. I had the same result last year when a pair (whether the same pair or not I cannot say, for I then had two pairs) laid two clutches of four each—all clear.

TRIANGULAR-SPOTTED PIGEONS (*Columba phaeonota*). I turned out into my grounds two pairs of this species. For some time they all came down to feed, then only three, and this week only two—otherwise they appear to have done well. I am hoping they may become established here at liberty.

In the aviary my old pair have so far only reared one young bird this season.

RED-RUMPED PARRAKEETS (*Psephotus haematonotus*). These have now three young birds in the nest-log.

MILITARY STARLINGS (*Trupialis militaris*). I turned my pair of this species into my large aviary; they were then in fine form, but do not appear to have attempted to nest; the cock now appears to be moulting.

TURTLE DOVES (*Turtur communis*): A pair of this species have appropriated a blackbird's (or thrush's) nest, placed some little height up in a box tree; the nest now contains two young birds.

Nothing worthy of mention re my other species.

Leadenham: June 29, 1922. J. S. REEVE.

A CASE OF LONGEVITY, ETC.

SIR,—I have only a small number of foreign birds, which consist of:

3 Avadavats (*Sporaeginthus amandava*).
1 pair Cordon Bleus (*Estrilda phoenicotis*).
1, ♂, Zebra Finch (*Taeniopygia castanotis*).
3 Orange-cheek Waxbills (*Sporaeginthus melpodus*).
1 pair African Waxbills (*Estrilda cinerea*).
1 pair Silverbills (*Aidemosyne cantans*).
2 Weavers (Species?)
1 pair Grey Java Sparrows (*Munia oryzivora*).
1 pair Cutthroat × Red-headed Finch (*Amadina fasciata* × *A. erythrocephala*) hybrids.
2 pairs each Green, and Yellow Budgerigars (*Melopsittacus undulatus*).
1 Red-crested Cardinal (*Paroaria cucullata*).

I also have Canaries, Bullfinch, Greenfinch, Linnet, two Goldfinches, three White Goldfinch-Canary mules, one Greenfinch-Canary mule. The Linnet mated to a canary has bred me two mules this season.

I would like to tell you of a cock Zebra Finch, which came to me in 1915, and he only died on June 18th of this year. For some time I kept him alone, as I had no mate for him, but early this year I got a hen with whom he duly mated up. He was a very lively person in spite of his age, and I miss his quaint call now, as he was such a taking individual. I do not know his age when he came to me, but I would like to know if his age (cannot be less than eight years old) is a record for this species?

No bird ever sang in my room that he did not try to copy in his comical way, and he always had a say in everything.

He had no bad illness all the years he was with me, but about four days before he died was so stiff he could not manage a perch at all.

I thought this might interest readers, but I hope to have more interesting items to record later.

Torquay: June 28, 1922. (Miss) O[illegible] [illegible]BURN.

DISPLAY OF *BATHILDA RUFICAUDA*.

SIR,—I wonder if a rather curious part of the display of the Rufous-tailed Grassfinch, which I witnessed this morning, has been recorded?

I got a few pairs for turning out last week, as the species did very well with me at liberty before the war. The new arrivals, though a bit rough in plumage, are thriving and staying in the most exemplary fashion. To-day the best cock and hen were making advances to each other, and the cock danced to her, holding a piece of grass in his beak in the usual fashion of grassfinches and waxbills. The next part of the performance was, however, quite new to me. He flew very slowly round a clump of bushes making, for so small a bird, quite a loud clapping noise with his wings. The hen then went up to him and took the grass out of his beak and performed the same flight, accompanied by the same sound.

Havant: July 16, 1922. (The Marquis of) TAVISTOCK.

CURRENT NOTES OF MY AVIARIES.

Sir,—I am having a fair season, though not so good as last. Overcrowding is responsible for this I fear, but I find it difficult to keep the inmates of the aviaries down to proper breeding numbers. So far I have only the following independent of their parents:

5 Quail Finches (*Ortygospiza polyzona*) from two nests. A detailed account of this success will follow later.
4 Zebra Finches (*Taeniopygia castanotis*).
2 Cuban Finches (*Phonipara canora*).
2 Red-crested Cardinals (*Paroaria cucullata*).
2 Cordon Bleus (*Estrilda phoenicotis*).
2 Virginian Cardinals (*Cardinalis cardinalis*). I hand-reared these.
2 White Java Sparrows (*Munia oryzivora*).

A few Budgerigars and Canaries, and another brood each of Red-crested Cardinals, and Zebra Finches left the nest three days ago.

Failures: Four nests of Green Cardinals (*Gubernatrix cristata*) came to grief. They contained, all told, no less than *fourteen* young birds, and died on each occasion on the third day. Both pairs are incubating again, and due to hatch in a few days; with better results this time, I hope. Altogether a pretty rotten season so far. A whole heap of birds are incubating, etc., but I do not count these in until the young have actually left the nest.

The young hand-reared Virginian Cardinals should, I think, make very attractive pets.

I am also hand-rearing Blackbirds, Magpies, and a few Chaffinches, the latter to try and obtain a hen for mule breeding.

At Liberty: In the spring I turned out loose into my grounds a pair of Rufous-backed Weavers and other birds . The Rufous-backs stayed, built a nest in a holly-bush, directly in front of my bedroom window, and overhanging my bee-hive; a clutch of eggs was duly laid, and in due course they brought forth three young birds, which are now with their parents disporting about my grounds.

Kingskerswell; July 2, 1922. G. E. RATTIGAN, Capt.

Post Mortem Reports.

Grey Singingfinch: A. H. Barnes, London.—Congestion of lungs. Fatty degeneration of liver. Answered by post.

Red-collared Lorikeet: Capt. Reeve, Leadenham.—Advice on clinical observation by Capt. Reeve. Answered by post.

Whydah: Mrs. Cyril Dennis, Market Drayton.—Enteritis.

C. H. HICKS.

Photo by F. E. de Q. Quincey

Group of Grassfinches.

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BIRD NOTES:

— THE —

JOURNAL OF THE FOREIGN BIRD CLUB.

Stray Notes from Lady Dunleath's Aviary.

By the Lady Dunleath.

I have now a good many birds, mostly ordinary species, in my aviary, having added a few more at intervals as opportunity occurred. One, a Glossy Starling (*Lamprocornis chalybeus*), is a facsimile of the one which lived here for ten years; another, a Military Starling (*Trupialis militaris*), is the first I have ever had of this species--these two I got from Gamage's.

With them in the first division of my aviary are:

Saffron Finches (*Sycalis flaveola*).
Various species of Weavers and Whydahs.
Pair of Budgerigars (*Melopsittacus undulatus*).
Pekin Robin (*Liothrix luteus*).
Baya Cowbird (*Molothrus baya*).
Two Cardinals
Madagascar Weavers (*Foudia madagascariensis*).
Pair of Cockateels (*Calopsittacus novae-hollandiae*).

Second Division: This is given up to Waxbills and other odd *Ploceidae*, as follows:

6 pairs Avadavats (*Sporaeginthus amandava*).
7 Grey Waxbills (*Estrilda cinerea*).
1 Blue-breasted Waxbill (*E. angolensis*).
1 Green Singingfinch (*Serinus icterus*).
4 Black-headed Nuns (*Munia atricapilla*).
5 pairs Zebra Finches (*Taeniopygia castanotis*).

The Avadavats (I got them from Hamlyn) have bred—at least one pair has—and have four young ones just hatched (August 7). They built a lovely nest, like a wren's, in an ivy bush, and I am hoping the young will be successfully reared. I bought these birds in December last, kept them through the winter in a large room in the house, the only heat being that radiating from two incubators.

One pair of Zebra Finches have nested, and now they have a family of three flying about strongly. They built their nest in a fuchsia bush, very like a wren's. The other two pairs have nests and are, I believe, incubating clutches of eggs.

The Grey Waxbills have not nested. I bought twelve of these charming, if freely imported, birds, but five have died; I found them lying dead, fat and in perfect plumage—one dropped dead while I was sitting in the aviary yesterday, almost at my feet.

The other birds have made no attempt to go to nest.

THIRD DIVISION: Here are canaries and a few British finches, doves, etc., as under:

18 Canaries (*Serinus canarius*, dom. var.)
1 pair Bullfinches (*Pyrrhula europaea*).
1 pair Shore Larks (*Otocorys alpestris*).
1 Snow Bunting (*Plectrophenax nivalis*).
1 Masked Dove ♀ (*Oena capensis*).
1 pair Palm Doves (*Turtur senegalensis*).
1 pair Californian Quail (*Lophortyx californica*).
1 pair Red-headed Finches (*Amadina erythrocephala*).

The canaries were all bred from two pairs I got in the Spring—one pair built a typical, cup-shaped nest in a bush, in the open flight, in February last, and, in spite of inclement weather (cold & wet) the eggs were incubated and the young were successfully reared—they build beautiful nests in the bushes, in every way similar to those of the wild species. There have been some deaths, but eighteen are still living; they do not mind cold, but cannot stand cold and damp; we have had nothing else but mist and fog with rain for the past three weeks, and my yellow cock, which has fed and reared many young ones, died—he was quite well two days ago—from pneumonia I am sure, and it was very rapid. I have never yet seen a hen canary feed her young ones; the cocks feed both her and them.

The Bullfinches have had three nests, but have not reared any young this year. I have had the hen (quite tame) since 1915—she was taken out of a nest in Hampshire—the cock is a local bird; he came into the aviary of his own accord and is very tame; they have reared young in past years.

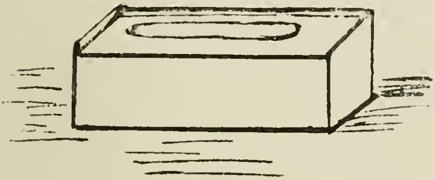
The Goldfinches have made no attempt to go to nest—they have never bred with me.

The Californian Quail, which I got from Gamage, have done well for new acquisitions. The hen laid fourteen eggs in a scrape, and is now incubating a clutch of thirteen.

I also have a pair of small Egrets, which I got from Mr. W. T. Page; I have great hopes of breeding them next season. They live in an Insignis near the pond; they are pinioned, yet can fly down from a great height, but not up.

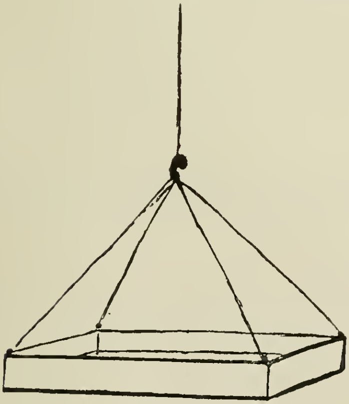
All my birds are now quite ordinary, but very interesting, and all tame.

Food and Treatment: I always feed and tend them myself, and we make the soft food of crushed hemp, bread crumbs dried in the oven, sponge cake crumbled fine and put through a sieve, and crushed cuttlebone—this I store in a tin, and moisten (slightly) the daily portion with water or grated carrot—I supply this in small wooden boxes, 4in. by 2½in.; the lid has an oblong hole to prevent the food being wasted. Those used for seeds have six round holes in the lid. It does not get sour, and the birds, young and adults, do very well on it.



Soft-food box—lid draws out.

In the shelters I hang shallow wooden trays from the roof, and place the boxes containing seed, etc., inside these, thus ensuring little or no waste, a tidy floor, and the foods cannot be fouled by mice.

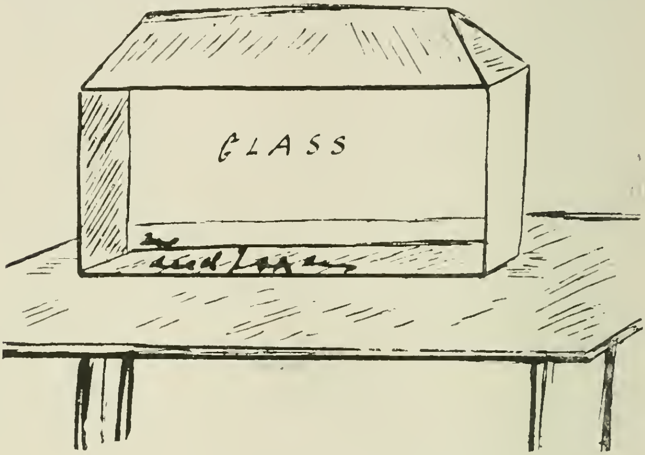


Seed Tray hanging in Aviary Shelter.

Mice must be kept down, and I get rid of a good many by means of a box of poisoned meal, the box is about 18in. square, with a wire lid—only mice can get into it—they die at once in the box.

My general seed-mixture is: Canary, white millet and rape in about equal parts, and a little hemp. I also supply canary seed in bulk separately. Indian millet, and millet-sprays are supplied for the waxbills and small ornamental finches.

In the outdoor flights I have food tables, upon which I place the food-boxes; these I protect by small wood framed glass shelters—the whole front is open, and, the back being glass, the birds have unrestricted light for feeding.



Food Shelter on Outside Table.

I also have a large tray on a table in which I sow oats and all the different seeds, and the birds are very fond of this.

On another table I have a wooden box in which I keep water, and in it place groundsel, chickweed and other greenfood.

I scatter in the aviary fine hay and small feathers (chickens') for nest material.

Since the above was written a few days have elapsed, and, in spite of cold winds and constant rain, the little baby Avadavats are doing very well.

◆

Notes on Jungle and other Wild Life.

By Dr. Casey A. Wood, M.B.O.U.

(Continued from page 141).

Once upon a time—I use this phrase because it seems appropriate to what follows—I was greatly interested in the folklore and fairy-tales (if one can differentiate the two) of the Guianese Indians, and even thought of publishing an account of certain minor aspects of the subject, the details of which I would not weary you with for the world; but I abandoned the scheme, if for no other reason than that a very observant, diligent and painstaking scholar (for many years resident magistrate in the interior) has practically covered the ground. If you wish to read the remarkable and fascinating pages of this truly scientific Hans Christian Andersen, write to the Bureau of American Ethnology, Washington, D.C., for Dr. Walter E. Roth's "Inquiry into the Animism and Folk-Lore of the Guiana Indians." For instance, this is How the Deer got his Hoofs (p 212):—

"The Deer met the Turtle one day, while cleaning his hoofs—for in those days turtles wore hoofs and the deer had claws—and said: 'My friend, you have nice sandals. (Sandals are still commonly worn in the hinterland of Guiana). Let us have a trial of them.' The Turtle, who was very proud of his feet, said: 'Certainly. Why not?' and handed them over, receiving in exchange the Deer's nails. When the Deer put on the hoofs, he found he could walk ever so much quicker than before, and trotted off. The poor Turtle, however, found his progress impeded, and stood still, waiting every minute for the Deer to return, but he never did." Dr. Roth adds that among certain tribes, the head of a turtle is the 'amulet' for hunting deer. Well, I should imagine it well might be!

Likewise this is how some of the South American birds obtained their remarkable colours (tale No. 142 and notes):—

"Once there was war among the Spirits above the clouds of which the Kiskadee (*Lanius sulphuratus*, a very common and very pretty bird, reminding one somewhat of our meadow-lark). though a valiant little bird, greatly disliked, and bandaged his head with white cotton, pretending to be sick, but being detected, was sentenced to wear it constantly.

The Trumpeter Bird (*Psophia crepitans*) and the Kingfisher quarrelled over the spoil (of the war) and knocked each other into the ashes. The former arose with patches of grey, while the other became grey all over. The Owl discovered among the spoils a package done up with great care, which he found contained Darkness only; he has never been able since to endure the light of day."

There are over two hundred such tales illustrating every phase of life among the Indians of this region.

In the same volume is the legend of that wonder-spot, the celebrated Kaietur Fall, which we hope soon to explore. It is given in the words of Barrington Brown, its discoverer:—"Once upon a time there was a large village above the fall, situated on the little savanna (grassy plain), amongst the inhabitants of which was an old Indian, who had arrived at that period of human existence when his life had become a burden to himself and a trouble to his relatives. Amongst other duties, there devolved upon the latter the tedious one of extracting the jiggers from his toes which accumulated there day by day. These duties becoming irksome at least, it was arranged that the old man should be assisted on his way to his long home, that spirit-land lying two-days' journey beyond the setting sun. He was accordingly transferred, with his pegall (basket) of worldly goods, from his house to a woodskin (boat) on the river above the head of the great fall, and launched forth upon the stream. The silent flood bore him to its brink, where the rushing waters received him in their deadly grasp, bearing his enfeebled body down to its watery grave in the basin below. Not long after, strange to relate, his woodskin appeared in the form of a pointed rock, which to this day is seen not far from our lower barometer station; while on the sloping mass of talus to the west of the basin, a huge square rock is said to be his petrified pegall. Thus has the fall been named Kaietur (Old Man's Fall) in memory of the victim of this tragic event."

One more tale and we shall leave the realm of Indian fancy. I choose it because my friend Mr. John Ogilvie, who has lived among the Indians of the Guianas for twenty-five years, showed me how to make and solve the puzzle. In spite of the excellent cut (page 180) in Roth's I can assure you it is not as easily solved as one might think. If I haven't forgotten how to do it, when next we meet, I shall be glad to show you. This is the story:—"If an Indian loses his way in the forest, the (Evil) Spirit is the cause. The Caribs, however, know how to circumvent the latter, by making a string puzzle, which is left on the pathway; the object of this puzzle consists in removing, without cutting or breaking, an endless string from off two sticks upon which it has been placed. The Spirit coming along sees the puzzle, starts examining it, and tries to get the string off; indeed, so engrossed does he become that he forgets all about the wanderer, who is now free to find the road again."

Every visitor to this region should extend his journey to Dutch Guiana or Surinam as it was originally, and is now officially called. It exhibits a curious mixture of Dutch modernity, and the relics of slave barbarism not to be seen elsewhere. Surinam was colonized by Lord Willoughby, Governor of Barbados in 1665, and became a flourishing plantation within a few years. It was not until more than a century afterwards that the British acquired their present holdings on the mainland. These dry facts are, however, subsidiary to the one I am about to mention, and especially ought it to be known to persons like myself, whose folk for many generations before the British occupation lived on Long Island. In 1667 that parcel of land and " some waste territory adjoining," were by the terms of the Peace of Breda prartically traded by Holland for Surinam. Probably you and I would have done the same thing, because the British possession was apparently of more value than the bare farmer-fisherland along the Sound! Then, again, Surinam was next door to other Dutch colonies while New Amsterdam was only an isolated gateway to hostile territory; better let it go, and take something of actual value while the taking was good. Still, somehow or other the Dutch guessed wrong, because I am informed that I could buy pretty nearly all Surinam for the present value placed on those 600 acres on Long Island which, somewhere around 1676, were apportioned to my patentee ancestors Edmond and Josiah Wood.

Quite a library of books and pamphlets resulted, as you know, from this provision of the Breda treaty, not the least interesting of which is one, a broadside by an English planter of Surinam, protesting in fervid terms against being turned over to the tender mercies of Holland; indeed Barbados, Virginia, and several other colonies were the gainers by immigration from Surinam after its surrender to the new Masters, the Dutch meantime trying to discourage this exodus, and especially of those planters abundantly supplied with slaves—most valuable property.

Speaking of slaves, it will be remembered that it was here in British Guiana that the Anti-Slavery Society (first established in England about 1873) found their most effective appeal, in the person of a protagonist of our John Brown. There had already been several uprisings of enslaved Africans in other colonies, and the Guiana whites—few in number—were naturally apprehensive of another on their own plantations. In the year 1823 these fears were realized, for the blacks rose in rebellion against their white owners. Th Rev. John Smith, an English missionary, was accused of encouraging the uprising, which was soon suppressed, and a number of the slaves hanged. The charges against Smith were probably not true, although he was opposed to slavery and hoped for its abolition.

Whatever the technical merits or demerits of the case may have been, he was arrested in a most brutal manner and, while ill of a serious disease, was thrown into prison and charged with being a chief cause of the negro insurrection, or that at least he " did promote, as far is in him lay, discontent and dissatisfaction in the minds of the negro-slaves." He was found guilty of the charge and sentenced to be hanged, but before the order of the Court could be carried out the " Demerara Martyr " died in the common jail. Smith's death proved of greater value to the cause of emancipation than all his previous efforts to free the enslaved. The circumstances of his arrest, trial and death were published through England, and the discussion and agitation that followed contributed not a little to the passage of an Act (August 28, 1833) abolishing slavery in every British possession.

Under the caption " The Trail to Kaietur, the Great South American Falls, 822 feet high, and 400 feet wide," Eleanor Beers Lestrade writes for *Scribner's Magazine*, page 562 (about December) 1920, one of the best descriptions of this world-wonder that I have read. The article is illustrated by photographs taken by the author which give a better idea of the fall and cataracts than many of the larger pictures that one finds in the shops here. Not that *any picture*, great or small, can do more than suggest the awful majesty of Kaietur!

Mrs. Lestrade says that until her trip in the Spring of 1920, no American woman had ever seen the Falls, and that it had not been visited by more than a hundred white men, and at the most by ten white women. These figures have not been much increased to the present date.

The great fall (four times as high as Niagara) is on the Potaro River, a branch of the Essequibo, about 200 miles in the interior of British Guiana and less than five degrees from the equator. The only feasible plan for reaching it is by means of rest houses and other provisions made by the firm of Sprostons, Limited, who control most of the transportation facilities. I wish I had space and time to describe the journey by forest, mountain and river; as it is, you will find full accounts in the "literature" furnished by Sprostons as well as by the Geographic Magazine and by recent work on the colony. I will only say that any man (or woman) in good health and reasonable vigour may easily undertake the four 7-walks because not only are the forest trails well kept, but the mountain paths are shaded all the way by the evergreen jungle. It is always cool in the depths of the tropical bush. As for mosquitos, dangerous snakes, jaguars, hostile Indians—well, there are not and probably never were any! An ordinary expedition occupies less than a fortnight, and five of us made the journey at a cost of less than $200 each; not bad when one remembers that after we left the last portage, to which we were brought by a steam launch, our human outfit included fourteen (mostly Indians) paddlers, bearers and other servants. All our provisions, sleeping material, etc., had to be carried on the backs of bearers around several cataracts, and several miles over a mountain trail to reach the elevated plateau whence the Potaro plunges into the Kaietur gorge.

My four *compagnons de voyage* were all—whatever else they may have been in life—sincere and eager worshippers at "Nature's open shrine," and I think we all profited much from the discussions prompted by the flora and fauna seen by the way. The names of my travel friends were Dr. Harold Gifford, of Omaha, Neb., Major Chester Davis, U.S. Consul for British Guiana, Major F. C. Shorey, of Montreal, and Mr. E. C. Freeland, Chemist to Plantation Uitvlugt, one of the largest sugar estates in the colony.

Happenings in Our Aviaries.

By Dr. E. Sprawson.

The following happenings in our breeding aviary are forwarded, as they may possibly be of some little interest to others:

Zebra Finches (*Taeniopygia castanotis*): Two pairs have been laying and sitting, but have not yet brought anything forth.

Firefinches (*Estrilda minima*) have brought forth one lusty youngster who is now commencing to show male colouration. The parents now have two more young in the nest. I am not quite sure that the two parents are of the same species, as the male which I purchased last year in immature plumage has never shown any white dots on his sides; he was in with a consignment of Senegal birds and many other ordinary Firefinches, so I presume this is merely a slight variation from the normal—but would be glad to know.

Rufous-tailed Grassfinches (*Bathilda ruficauda*) have four very fine and now quite independent young, and the parents are now sitting again. These birds nested several times both in 1920 and 1921—always in the open in a bush or creeper, and though each year they had one or more young leave the nest they never reached the age of independence—rains always soaked the nest or drowned the young. This year they nested in a box, and in spite of the wet have succeeded; their second nest they began in a rose bush, so I pulled it down and they have again gone to a box.

Gouldian Finches (*Poephila gouldiae*): We have two pairs of these—Black-headed, and at the moment both pairs have young, four and six days old respectively; we have bred these birds to maturity on three previous years—indeed, one of the hens which has young now we bred here last year.

Pectoral Finches (*Munia pectoralis*): We recently acquired a pair of these; once before we had young up to ten days old, but it was too late in the year for complete success. Several males that we have had have all, when courting, had the same habit of collecting all the small white stones they could find in the aviary, for what purpose it is somewhat difficult to

Photo by W. R. Temple.

Group of Gouldian Finches.

imagine; our first knowledge of this was in 1914 when we found some dozen or more small white stones the size of a pea on the top of an Avadavat's nest. One wondered who the practical joker was, and often afterwards used to see the male pectoral carrying similar stones about the aviary.

We were unfortunate enough in the very early part of this year to lose our last hen Parrot Finch—one we had bred in 1919, and a very fine bird—otherwise we, or rather my wife, in my absence abroad, had bred one or more each year for five years in succession—nice birds, easy to breed, but not easy to sex with certainty.

A male CORDON BLEU (*Estrilda phoenicotis*) paired with a hen Cuban Finch (*Phonipara canora*) this year, and had two nests, but the eggs have proved infertile. The rain and cold killed the Cordon Bleu about a fortnight ago, so they won't have another chance, but anyway one is not particularly fond of hybrids.

We have a pair of birds we are not quite certain of the name of—now I think going to nest; we got them from Mr. Castang about two months or more ago. I think he called them Bearded Seedeaters, or South African Green Singing finches—they are certainly larger and finer than the ordinary Green Singingfinch, and are easily sexed; the picture in Butler's book of the Green Singingfinch is a very good representation of the male, though not quite a deep enough yellow, but what *is* its real name?

A relative brought me over about a fortnight ago four Sydney Waxbills—extremely fit—we turned them out thinking we were going to have some fine weather, but in spite of the rain and cold since then they are as fit as ever.

There are thirty-three birds, exclusive of young, in this aviary.

The Breeding of the Crimson-winged Parrakeet.

By THE MARQUIS OF TAVISTOCK.

In a former article I described a successful experiment in wintering cock Crimson-wings at liberty. Three birds were actually released, but one proved too spiteful and had to be got rid of. The remaining two were caught up at the beginning of March and provided with mates in different aviaries. One of the females was a young bird, imported last autumn, and I was not very surprised that she did not come into breeding condition, but moulted early in the summer instead, without, I am glad to say, donning male attire, after the all too common custom of immature "hens" of this species. The other I had had two years. The first summer she laid several eggs, but entirely refused to sit or look at a nest-box. Last year she did not even lay.

This year, acting on the advice of a friend in Australia, I provded her with a new type of nest. According to my friend, Crimson-wings in their native haunts frequently enter a hole in a tree thirty or forty feet up, but the actual nest is usually almost on a level with the ground, the bird descending to the very bottom of the hollow interior. I therefore obtained a section of a hollow tree trunk about 6ft. in length, set it up on end, made the inside climbable with a strip of wire netting, fixed a scooped-out block of wood on the bottom for the actual nest, fastened a "lid" on the top and made the entrance hole immediately beneath the lid, with a piece of cork bark under it for the birds to cling to.

It might be wise, at this point, to caution readers against following the example of an aviculturist who imitated my nest but forgot my warning about the climbable interior. The result was that the hen's first entrance of the log was also her last, for she perished of starvation at the bottom!

The new home fortunately met with the Crimson-wings' approval. The cock, who worried very little at the loss of his liberty, soon began to examine it, and condescended to that brief, lukewarm and reluctant friendship with his wife, which in Crimson-wing circles seems to be the nearest approach to married love. By the end of April the hen was also visiting the log, and in the first days of May she began to sit and was very seldom seen. At the end of the month a faint squeaking announced the arrival of a young one, and the cock began to spend a good deal of time inside the nest, even roosting there now and then. About the middle of July the youngster emerged, and an examination of the log revealed one addled egg. The young bird was well feathered and well grown, but for some reason seemed extremely weak and hardly able to walk or fly. It is possible that it injured itself in its first use of its wings. I did not think it would live, but rather to my surprise it has improved steadily. At the time of writing (August 4th) it can walk well, climb very fairly, and is beginning to fly with increasing strength, and cannot very readily be distinguished from its mother. The parents still seem fond of it, although they are in full moult; indeed the old cock is much fonder of his child than of his wife, for he never attempts to hurt the former, while the latter he chivies and bullies with renewed zest; one would expect her to be glad when I turn him out again, but last year she rather missed him and was quite unhappy—there is no accounting for tastes, either in man or bird!

A Seeker after Bird Marts.

By Mrs. D. Dickinson.

I wonder if anyone shares my hobby, so amusing and instructive to myself, and so distressing and irksome to my companions, of setting out, immediately that one arrives in a new country, or one's ship touches briefly at a hitherto unknown port, in search of the Bird Shops.

This apparently harmless occupation takes an astonishing hold on you, as you develop a strange skill and secret satisfaction in learning how to meet and overcome the reluctance of hotel authorities, chief stewards, butchers, etc., on ships, railway employees, and one's travelling companions, to housing, putting up with, carrying about, and finding rare foods for, the extraordinary collection you joyfully bring from the birdshops.

It is great fun, for you never know whether you will find that there is no such thing as a bird shop, and that birds are even seldom offered in the market places, or that there is a whole " Street of the Birdsellers," as we found in Calcutta, where the variety of birds, and the noise, was so confusing that I feel sure I missed the best ones, through being dazed and exhausted with choosing. There at least eight merchants were clamouring for your notice, thrusting reluctant parrakeets, handcuffed on to minute swings, in your face, dragging birds, unknown to fame, out by claw for inspection, thrusting aside birds you were choosing with difficulty, and making the amateur Hindustani speaker feel thoroughly ill at ease.

My usual impression is that a really successful bird mart, or shop, must be in close proximity to coal wharfs, or at least have a faint aureole of coal dust round it.

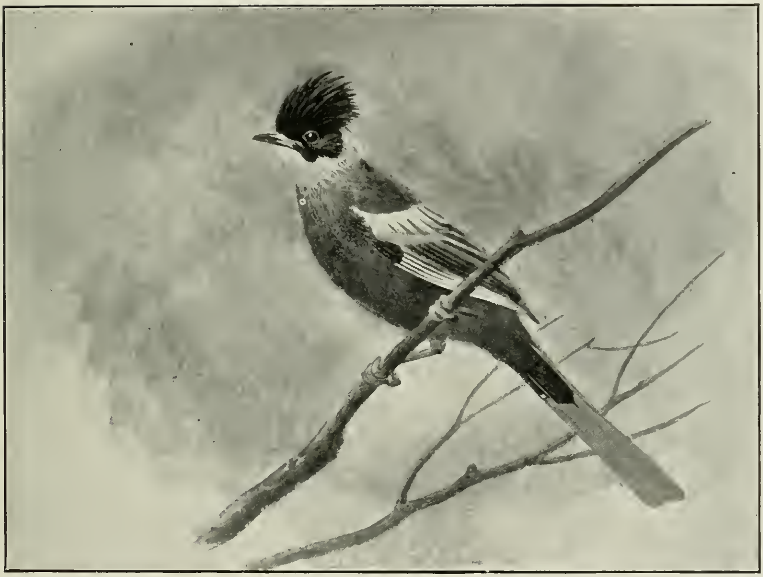
In Colombo, in Marseilles, in Port Said, this peculiarity prevailed, or if not coal dust, or sand, a strange atmosphere pervaded, if not seen, often strongly felt on a hot day. In any case the locality is remote and grimy.

At Port Said I found only some Mammoth Crested Larks, in dozens, whereas I had hoped for some rare African Finches, or Weavers to make up the job lot of Weavers hastily gathered in Marseilles, said to be the last coming in, as it was the early days of the war. I took them out East, and was greatly mystified by them until they began to come into colour, as I had no books of reference till later. I believe it is better to go in for this sport in considerable ignorance.

The thrills I experienced in Bombay when I was offered "Rangoon Bulbuls," which were delightful and taking crested birds—so handsome in glossy black and chestnut-red and when they turn out to be Buntings (*Melophus melanicterus*), caught locally, they are none the less delightful. This is a showy, graceful bird in a big aviary.

The same man offered me "Basra Bulbuls," which doubtless came from the nearest cold climate in India.

In Agra, they sold me "Nepali Shamas," intelligent, beautiful birds, but proving to be Black-headed Sibias! They were the best of pals and the sweetest birds I have kept, accompanied by a "Thrush," said to come from some obscure province, which was in reality a rather dingy, slatey, mottled Babbler, who became the unfailing Clown and Court Fool of every cage or aviary he lived in. They offered me two priceless birds called "The Sun" and "The Moon," so talented and rare that I hesitated at asking their price, and, noticing that "The Moon," was in a species of fit, or eclipse, I pleaded poverty, and turned to a lovely Scimitar Babbler, but failed to buy him. I think the others were really Pied Mynahs



From life by H. Goodchild.

Black-headed Sibia.
(Malacias capistrata).

(*Sturnopastor contra*), but being quite new to my eye, and the owner praising them so much, I thought them something beyond mortal ken. Native bird-sellers think very highly of these birds, and train them to a wonderful state of intelligence and tameness. I found them rather delicate and bad travellers, but clever.

These were all at the " Fine Art and Animal Emporium " at Agra, the account of which would fill volumes, and the advertisement of which was absolutely unique, but, although its promoters guaranteed to provide Giraffes, Lions, etc., I cannot recall any symptoms of " Fine Art " about it. I was guided to it from a slum street in Agra, and went through such an alarming laybrinth of tiny alleys and precipitous stairs, up and down, that I feel sure the cages must have been moved in and out through the windows, which, I think, were in the roof! ! As I was creeping through the narrow door, a terrific looking, enormous dog nearly knocked me down, and made the stifling air vibrate with its furious barking. He was a Thibetan Mastiff, bred in the monastries of their remote hills, as his owner remarked, when full grown " will grow as an ass, as his father was," or in other words, as big as a donkey.

Colombo was my easiest hunting ground for a long time. " Leo," the owner of that bird shop, had such a variety and such nice things—lovely Red Fruit-eating Parrots, the most gentle and pathetic of fowls, of which he would only sell pairs, as single ones pined immediately. Alas! I could not make them thrive, even in our damp, hot climate; perhaps they need a dry climate really.

Cages of delightful young Painted Barbets greeted you, clamouring for a feed, their absurd beaks agape, stiff little whiskers bristling with excitement, and probably several of them with the strange sort of Bagpipes of Skin, peculiar to their necks, inflated to produce their extraordinary and horribly noisy cry; one never notices that the neck has anything unusual about it until they begin their call by inflating it. I was very fond of these absurd and prettily coloured little Barbets (*Xantholaema-haematocephala*). " Leo " recommended them to buyers, as having " a very pretty whistle." Heavens! what appalling taste! We used to buy, by the dozen, miserable tiny Avadavatish birds, from the hundreds huddled together, where they were out of colour, viz: entirely without feathers except for a few stumps on their heads, for the fun of seeing what they turned into, when healthy conditions hastened their moult.

Alas! those happy days came to a sad end, for "Leo" was tactless enough to get shot, when in the front of a very unsettled mob in the Ceylon riots, and that, doubtless by mistake, for I cannot believe he could have been a seditious character—he used to apologise so prettily when his young bear's chain got too loose and it kept you imprisoned in a corner of the shop, while he was haggling with a neighbour outside. I was far out in the country, and his widow failed to let me know when she had a sale, and the stock was practically given away, I hear.

My most difficult marts were, I think, in Java and Bangalore. In the latter the old man sometimes refused to sell to me, but he did not often have uncommon things, I think; I got a nice Green Oriole from him, which, alas! escaped after a week, and many Red-whiskered Bulbuls (*Otocompsa jocosa*), but his mind was always on Fighting Quails—he was a bad business man!

In Java you have to drive round and find the birds, which merchants carry, strung in stacks of cages, from each end of a bamboo shoulder pingal, and offer for sale in the streets, moving along constantly. I never got anyone in Batavia or Bandoeing to divulge where these bird-sellers collect when in repose, but they spend all day running with a crab-like gait, and to my mind always away from the would-be buyer. I saw four kinds of young Mynahs, half-grown, together in a tiny cage, varying from the common browny-black one, to the beautiful Java pure white Mynah, with black bars on the wings (*Graculipica melanoptera*), the intermediates being real crossbreds of streaky greys and unsettled colourings. I found the white one a delightful pet.

I was buying a job lot of some smallish greeny "jungle" birds, with a pretty orange streak on the brows and cheeks, apparently Bulbul relatives, which the man said he would let me have the lot (7) at the price of one, as he was tired of them, when, feeling a strange bumbling on my feet, I discovered two young Hornbills poking and prying (when they could balance their heads into a useable position) round my shoes—he explained that they liked to be loose when he was still. Each beak was as long as a candle box! and they were being trotted about in a minute cage, at the bottom of a stack of eight or ten other cages. Some instinct prompted me not to buy these, which was lucky, as I should have had to carry them off on some months of travelling, which fate decreed immediately after, and they look so immobile, and I feel sure eat vast amounts of possibly unattainable fruits.

My husband saw these Hornbills several times in Sumatra, being carried like a parcel in a small sling of grass matting with a vast beak sticking out on one side, and tiny wedge of tail on the other, but with what motive he never found out; was it for ornament? Surely not for food!! Instead of the Hornbills I bought a big whistling olive green bird, about the size of a Missel Thrush, which I since found was a Bulbul (*Tracnycomus ochrocephalus*), and I heard it wild several times in Sumatra; its note is so extraordinary, with a thrilling, penetrating, but beautiful tone, quite overpowering in a room, and I hear that the full song is gorgeous. They command big prices as cage birds in Java and Singapore. I wonder if this bird comes on to the English market at all? They would be very lovely to listen to in a big aviary. Mine was distressingly wild until I put him in with my job lot of jungly birds, when he calmed down at once.

Would not some of my fellow-members kindly write of their adventures and successes during remote bird shop exploration? It would be so interesting.

◆

Records of Birds which have Bred in Captivity.

By Dr. E. Hopkinson, D.S.O., M.A., M.B., F.Z.S., etc.

Some years back I compiled a list of the records of birds which have been bred in captivity; this appeared in Bird Notes in 1918 and 1919.

Here I have arranged the PASSERIFORMES records in two lists to supply the information in a shorter and more convenient form, by leaving the references out, as for those interested they are available in the original account.

The first list contains the records which I consider sufficient to establish entirely the event recorded; the second the more doubtful or incomplete records, which require amplification, verification or further details. From a practical point of view the birds in List 1 may be considered to have *certainly* been bred; those in List 2, probably or in some cases possibly.

For the general plan and the original references, etc., see BIRD NOTES, 1918, 57 *et seq.*

The numbers before the names in list 1 are those used in the original list. A few new records (unnumbered) and references have been added, though these are by no means complete or include all the recent successes.

When an entry is followed by the word "abroad" only, it means that I know no British record.

In list 2 I give shortly whatever reference appeared originally; in list 1 only new references are given, the absence of any addition to the name indicating that the breeding of the species concerned is established by the references given in the original list.

Latin names are not used for the well-known species.

I hope that those who can will assist with corrections and additions.

E. HOPKINSON.

P.S.—The following are extracts from a letter from Mr. Page, giving details and additions which I unfortunately received too late to incorporate in the Lists. I therefore give them here with references to this page under the different entries.

I hope others will follow this good example and supply further details and especially references, that is, where recorded, date, breeder's name, etc., so that the present double and incomplete list may be converted into a complete and single one, containing sufficient dated references to published records.—E.H.

(A) "I see you have no mention of HIMALAYAN SISKIN (*spinoides*) × CANARY. Dr. Scott bred this cross in 1915, and I have some of the living hybrids in my aviary at the present time." W.T.P.

(Where is the record? E.H. A like question needs answering in many other places).

(B) "Re 134. BENGALESE Hybrids. I think I have seen living specimens at L.C.B.A. Shows of all of them. . . . . As regards

BENGALESE × NUTMEG FINCH, there has been more than one note about it in B.N. . . . . Henstock, our publisher, bred it first, and two of the hybrids lived for quite a few years in my aviaries." W.T.P.

(C) "Re 176. *Cissopsis leveriana.* My record IS the Zoo one. I saw the young bird on the wing and finding insects . . . for itself." W.T.P.

(D) "Re 856. So far as I know *frontalis* has not been bred in England; *squamifrons* has been bred by several, Teschemaker first." W.T.P.

(E) "GOLDFINCH and SISKIN Hybrids." (List 2), "I have seen all these at the large Bird Shows." W.T.P.

(F) "*Spinus ictericus* × CANARY. I have seen this hybrid, but have no detail:—not bred by a member of the F.B.C." W.T.P.

(G) "LINNET × CUT-THROAT. I saw the hybrid, but we refused a medal for it, as there was so little observed data." W.T.P.

(H) "HOUSE SPARROW × YELLOW SPARROW." (This cross) "has been bred in England by Suggitt (first) and myself later." W.T.P.

(I) The "CAPE CANARY (*S. canicollis*) has been bred." W.T.P.

(J) "ZEBRA WAXBILL × AVADAVAT is authentic. It was bred by Dr. Scott . . . . I have a skin of one of them." W.T.P.

LIST I.

RECORDS OF BIRDS BRED IN CAPTIVITY, which may be considered complete.

FRINGILLIDAE.

1. GREENFINCH. Fairly frequently. And Hybrids.
   GREENFINCH × HIMALAYAN SISKIN. *Hypacanthis spinoides.*
   teste Shore Baily, A.M. 1919, 92.
   × MEXICAN ROSEFINCH, *Carpodacus mexicanus*
   × "SIBERIAN ROSEFINCH." See B.N. 1916, 206, 256; 1917, Insets, pp 22, 31; 1918, 123.

2. CHINESE GREENFINCH. And Hybrids.
   CHINESE GREENFINCH × GOLDFINCH.
   CHINESE GREENFINCH
   ———————— hybrid × GREENFINCH.

5 HAWFINCH.

6 YELLOW-BELLIED GROSBEAK, *Pheucticus chrysogaster.*

7. ROSE-BREASTED GROSBEAK.

8. BLACK-HEADED GROSBEAK, *Zamelodia melanocephala.*

9. BLUE GROSBEAK.
   TROPICAL SEED-FINCH, *Oryzoborus torridus.*
   Abroad. Holland. Blaauw. See A.M. 1918, 40.

10. WHITE-THROATED FINCH, *Sporophila albigularis.*
    WHITE-THROATED FINCH × GREY FINCH.

11. GREY FINCH, *Sp. grisea.*

12. EULER'S FINCH, *Sp. superciliaris.* Abroad.

13. BLACK-HEADED SPERMOPHILA, *Sp. melanocephala.* Abroad.

14. GUTTURAL FINCH.

15. BLACK SEED-FINCH, *Melopyrrha nigra.*

16. OLIVE CUBA FINCH, *Euethia olivacea.*

17. LITTLE FINCH, *E. pusilla.*

18. CUBA FINCH, *E. canora.*

19. DUSKY FINCH, *E. bicolor.*

20. JACARINI FINCH.

21. RED CARDINAL.
And Hybrids.
RED C. × RED-CRESTED C. (Incomplete, "one deformed young one lived seven weeks")

22. BLUE CHAFFINCH

23 CHAFFINCH.
And Hybrids.
CHAFFINCH × BRAMBLEFINCH.
× GREENFINCH. Page, and I think a more recent record.
× CANARY. Ditto.

24 BRAMBLEFINCH.
And Hybrids.
BRAMBLEFINCH × CHAFFINCH.
A recent record: Reeve (after 1907); see B.N. 1907, 174; and A.M. 1911, 349; (One exhibited at the L.C.B.A. Show, 1910. was almost certainly wild-caught).

25. GOLDFINCH.
And Hybrids.
GOLDFINCH × HIMALAYAN GOLDFINCH, *Carduelis caniceps.*
× TWITE, Scotland 1919; teste A. Silver, A.M. 1919, 13

29 RED SISKIN. *Spinus cucullatus.*
And Hybrids.
RED SISKIN × CANARY.

3 BLACK-HEADED SISKIN, *S. ictericus.*
And Hybrids
BLACK-HEADED SISKIN × SISKIN.

*33. HIMALAYAN SISKIN, *Hypacanthis spinoides.*
And Hybrids.
HIMALAYAN SISKIN × CANARY. See above P.S., A. page 172.
HIMALAYAN SISKIN × GREENFINCH. Bright, 1916. See B.N. 1916, 183. This cross also reported the reverse way, B.N. 1917, 195.

HIMALAYAN SISKIN—GREENFINCH hybrid × GREENFINCH: see B.N. 1917, 195.

* In the records under 33 it is specifically stated that they refer to *spinoides*, but I think that in some other records this bird and the Sikhim Siskin, *Spinus tibetanus* have been confused.

30. SIKHIM SISKIN, *Spinus tibetanus.* (? if the record (Teschemaker) under HIMALAYAN SISKIN, B.N. 1918, p. 95, does not properly refer to *S. tibetanus*).

36. MEALY REDPOLL.

37. REDPOLL. (fuller record desirable).
And Hybrids.
REDPOLL × TWITE. See A.M. 1919, 12. "bred in London."

38. DESERT BULLFINCH, *Erythrospiza githaginea amantium.*
And Hybrids.
DESERT BULLFINCH × CANARY. Abroad see Despott, Ibis, 1917, 303. (in Malta about 1916).

39. LESSER ROCK-SPARROW, *Petronia dentata.* Abroad.

42. CINNAMON SPARROW, *Passer cinnamomeus.*

43. CAPE SPARROW.
And Hybrids
CAPE SPARROW × YELLOW SPARROW.
× HOUSE SPARROW.

44. GREY-HEADED SPARROW. (Probably *P. griseus*, the commonly imported W. African species).
Hybrid record only.
GREY-HEADED S. × CAPE SPARROW.

45. YELLOW SPARROW, *P. luteus.*
And Hybrids.
YELLOW SPARROW × TREE SPARROW.

46. GOLDEN SPARROW, *P. euchlorus.* Abroad.

47. ALARIO FINCH.
And Hybrids.
ALARIO × CANARY.

49. ANGOLA SINGING FINCH, *Poliospiza angolensis.*
And Hybrids.
ANGOLA S. F. × CAPE CANARY. Abroad.
× ST. HELENA SEED-EATER. First breeder, Chawner, 1916. F.B.C. medal. See B.N. 1917, p. 72. (N.B. in the Feb. pink inset the parentage is given the reverse way—an error).

50. GREY SINGING FINCH, *Poliospiza leucopygia.*

51. CAPE CANARY, *Serinus canicollis.* (no records found).
But Hybrids,
CAPE CANARY × ST. HELENA SEED-EATER.
× CANARY.

52. SULPHUR SEED-EATER, *S. sulphuratus.*

And Hybrids.
SULPHUR S. × WHITE-THROATED SEED-EATER. *S. albigularis*

53. ST. HELENA SEED-EATER, *S. flaviventris.*
And Hybrids.
ST. HELENA SEED-EATER × CANARY.

54 GREEN SINGING FINCH.

56. CANARY.
And Hybrids.
CANARY × LINNET, SISKIN, GOLDFINCH, SAFFRON FINCH, BULLFINCH, and *vice-versa;* GREENFINCH × CANARY, CHAFFINCH X, GOLDFINCH X, TWITE X, LINNET X, REDPOLL X, MEALY REDPOLL X, SISKIN X, CITRIL X, RED SISKIN X, BLACK-HEADED SISKIN X, AMERICAN SISKIN X, ALARIO X, DESERT BULLFINCH X, *GREY SINGING FINCH X, ANGOLA SINGING FINCH X, CAPE CANARY X, SULPHUR SEED-EATER X, ST. HELENA SEEDEATER X, GREEN SINGING FINCH X, SERIN X, SAFFRON FINCH X, SCARLET ROSEFINCH X, PURPLE FINCH X, MEXICAN ROSEFINCH X, INDIGO BUNTING X.

Of the above some are commonly bred and all the records, I think, are reliable.

Of the three following one cannot think the same:
Orange Bishop × Canary,
Bengalese × Canary,
Natal Zosterops × Canary,
(See note, B.N. 1918, 139).

57. SAFFRON FINCH.
And Hybrids,
SAFFRON FINCH × ARGENTINE SAFFRON FINCH.

58. ARGENTINE SAFFRON FINCH, *Sycalis pelzelni.*

59. LEAST SAFFRON FINCH. *S. minor.*

61. SCARLET ROSEFINCH. Abroad.
And Hybrids.
SCARLET ROSEFINCH × GREENFINCH.

63 MEXICAN ROSEFINCH, *C. mexicanus.*

63A PINK-BROWED ROSEFINCH, *C. rhodopeplus* (or perhaps *rhodochrous*).

64 CROSSBILL. A record in 1910. See A. Silver, A.M. 1911, 109.

65. BULLFINCH.
And Hybrids.
BULLFINCH × GOLDFINCH, 1915, White. See Cage-birds, Nov. 20, 1915, reprinted May 31, 1919.

66. PINE GROSBEAK.

67. REED BUNTING.

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*Add after DESERT BULLFINCH ×, "HIMALAYAN SISKIN (*Spinoides*) × CANARY." See P.S. (A), page 172.

69. CIRL BUNTING.

68. YELLOWHAMMER. (I think I have heard of success, but have no record).

70. MOORISH HOUSE-BUNTING, *Fringillaria saharae.*

72. BLACK-THROATED BUNTING, *Spiza americana.*

73. SNOW-BIRD, *Junco hiemalis.*

74. WHITE-CROWNED SONG-SPARROW, *Zonotrichia leucophrys.*
Hybrid record only.
WHITE-CROWNED SONG-SPARROW × CHINGOLO S.-S.

75. CHINGOLO SONG-SPARROW, *Brachyspiza pileata.*

76. INDIGO BUNTING.
And Hybrids.
INDIGO × NONPAREIL.
× CANARY. Abroad.

77. NONPAREIL BUNTING.

78. VARIED BUNTING. Abroad.
RAINBOW BUNTING, *Passerina leclancheri.* Mayer in France. See B.N. 1920, 254.

79. TOWHEE, *Pipilo erythrophthalmus.* Abroad.

80 ORCHARD FINCH, *Phrygilus fruticeti.*

81. DIUCA FINCH

82. PILEATED FINCH, *Coryphospingus pileatus.*

83. RED-CRORNED FINCH. Abroad.

84. RED-CRESTED CARDINAL, *Paroaria cucullata.*
And Hybrids
RED-CRESTED C. × POPE
× GREEN CARDINAL.

85. POPE. *P. larvata.*

86 GREEN CARDINAL. *Gubernatrix cristata.*

(*To be continued*).

◆

Rearing of Tataupa Tinamous.

In L'OISEAU for June 1922, Mons. P. Vendrau, gives an interesting account of this species reproducing its kind in captivity. and the followng is an abridged account of same.—Ed. B.N.

In 1921 my breeding pair of this species after wintering in an open-air covered aviary, commenced nesting operations—laying at irregular periods from April 11th to 25th, the first of these eggs was broken and the remainder put under a bantam, who deserted.

The hen Tinamou again laid—eggs being laid on May 12th, 16th and 22nd, and on May 25th she was incubating a clutch of four eggs—being disturbed she deserted and the eggs were given to a bantam—three were hatched out, one egg being clear—the bantam was inattentive and crushed the chicks beneath her.

On May 29th and June 3rd I found two more broken eggs, so I modified the aviary, making a retreat to which they could go unseen, though I was able to watch them unnoticed. Subsequently I saw the hen Tinamou construct a nest of grass and feathers—I saw the first egg on June 9th and others were laid on the 12th, 15th, and 18th respectively. On the latter date she was incubating closely, only leaving her eggs for food—before leaving she completely covered the eggs—the male took no part in incubation.

On the morning of July 8th I saw some egg shells outside the nest and a little black head showed beneath its mother—I did not disturb them, but in the evening I saw her in the aviary with three chicks—she had left the nest about four hours, still leaving two eggs in the nest—the fifth egg being laid, I believe, about June 20th, after incubation had commenced. The following day I saw the hen chasing her mate and violently pecking him about the head—I immediately caught her up and put her and the three chicks into a small inner aviary.

Although the two eggs she left in the nest were quite cold I put them under a bantam, and, on July 10th I found a young chick under the bantam, the other egg being clear—I put the chick with the hen Tinamou, who took to it at once—she reared all four, they are very fine and vigorous birds. The young Tinamous ate the insectile mixture freely, and were very keen on mealworms.

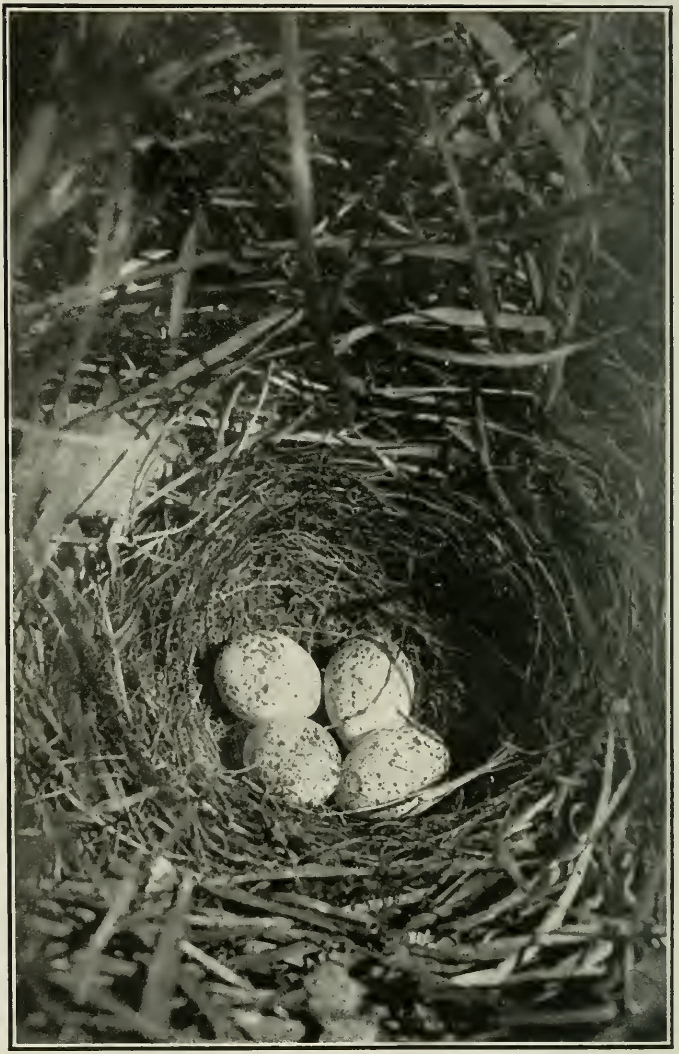
It is noticeable that, contrary to other species of tinamous, the hen alone incubated the egg and reared the young.

After the young were reared I reunited the parents, who got on very well together.

◆

Erratum.

Page 131, July issue; transpose lines 9 and 10.



A.P.P. *Photo by W. Shore Baily, F.Z.S.*

Nest and Eggs of Misto Seedfinch.

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BIRD NOTES:
— THE —
JOURNAL OF THE FOREIGN BIRD CLUB.

The Breeding of the Misto Seedfinch.
(Sycalis luteiventris.)

By W. Shore Baily, F.Z.S.

You published last year an account of the nesting of this little finch, and I am now able to send you a few notes on the successful rearing of young.

This spring I bought two more pairs from De Von, who was advertising them as Field Saffrons; my original pair, as some of your readers may remember, were privately imported. These birds seem to be very rarely imported by the dealers, and, when they do come over, are, I have no doubt, offered as Saffron Finches, but Saffron Finches they certainly are not, nor are they, I should imagine, very closely related to them. The two Saffron Finches with which I am acquainted—*S. pelzelni* and *S. flaveola*—are much more nearly related to Sparrows. They build in holes a large untidy nest, and their eggs are indistinguishable from some varieties of our English Sparrows'. The Seedfinch, on the other hand, nests on the ground, in the centre of a thick tuft of grass; the eggs are about half the size of the common Saffron, white with pink or red spots, sometimes all over, and sometimes at the larger end only.

At the beginning of May I turned my three pairs into different aviaries. One of the cocks was promptly killed by a Weaver; the other two pairs settled down nicely. The first to nest was my original pair, but as these eggs were rather exposed I took them for my collection. They soon went to nest again, this time in a heavier clump of grass. The first egg was laid on May 25th, and she commenced to sit three days later. On June 17th I noticed four naked young ones in the nest. These were fed by both parents, from the start, on small insects, but after a few days bread and milk, and seed mixture were taken by the parents. The young ones feathered fast, and when they left the nest on July 1st were strong on the wing.

In the meantime the second pair had also gone to nest in very thick grass. The nest could only be seen by parting the grass, which was a foot or more high. The hen reached the nest by a short run way. This nest must have been dry even in very wet weather. Here again four young ones left the nest—all strong fliers. In colour they were a greyish-brown, heavily striated on the back and wings, with the under parts buffish-white, slightly striped on the throat with brown.

Both pairs of birds again went to nest in July. I stepped upon and annihilated one nest whilst walking across the aviary, and I am inclined to think that the same fate must have happened to the other, as I left a brood of four when I went for my holiday, and forgot to warn my man of the exact position of the nest. When I returned they had disappeared, and the old hen as well, and I expect that he planted his foot on them. When I was at Gamage's one day in August I secured a single bird that they told me had been brought over privately; they did not know what it was. This has turned out to be a cock.

Writing of the Misto Seedfinch in *Argentine Ornithology*, Hudson says:—

> "This is a slender, graceful bird, less than the Canary in size; the "whole upper plumage yellowish-olive with dun markings, the lower "surface of a dull yellow. The female is a little smaller than the male, "and her colours are somewhat dimmer. This species is resident and "gregarious in the Argentine Republic, and in autumn frequently congre-"gates in flocks of several thousands. They are not so universally "distributed as the Chingolo, and are not wood birds, but frequent open "plains abounding in thistles and other coarse herbage, which affords them "shelter. In cultivated districts where their food is most abundant, "they are excessively numerous, and after the harvest has been gathered "frequent the fields in immense flocks. While feeding the flocks scatter "over a large area of ground, being broken up into small companies of a "dozen or more birds, and at such times are so intent on their food that a "person can walk about amongst them without disturbing them. They "take flight very suddenly, bursting into a thousand chirping, scolding "notes, pursue each other through the air, and then wheeling about for a "minute or two, suddenly drop down into the grass again, and are as "silent as ever."

A.P.P.

Photo by W. Shore Baily, F.Z.S.

Misto Seedfinches and Nest.

"The nest is well built, deep and well concealed, sometimes resting " on the ground, but frequently raised above it. It contains five long, " pointed eggs, with a white or bluish-white ground colour, and thickly " spotted with brown. I have frequently found the eggs of the 'Molothrus' " in its nest, but have never been able to see this bird feeding or followed " by a young 'Molothrus.' Possibly if it ever hatches this parasitical " egg at all, the young Cowbird is starved by the delicate food supplied by " its foster-parents."

◆

Some Notes on Red-shining Parrakeets.

By the Marquis of Tavistock.

The Fijian Parrakeets of the small genus *Pyrrhulopsis* are very rare, nowadays, in the foreign bird trade; indeed I have never seen a newly-imported specimen offered by an English dealer, other than the late Mr. Cotton, of Sheffield. Consequently, nearly all I have had have come to me through private channels.

The three best-known *Pyrrhulopsis* are the Red-shining, the Tabuan and the Masked. I believe there is a fourth species, or local race, but I have never seen even a stuffed specimen, and cannot describe it. My experience of Tabuan Parrakeets is limited to a moribund female I received from the Zoo, in the last stages of chronic enteritis. I hoped that a diet of fruit might save her; however, it did not, although the poor thing tried her best, eating and hanging on to life with a tenacity I have never seen equalled. Tabuan Parrakeets seem to be smaller than Red-shining; they have the head, neck and breast maroon, the back and wings shining green, nuchal patch blue, and flight and tail feathers of much the same colour; the beak is black and rather large. Of Masked Parrakeets I have only seen one, and I believe they are very rare, even in their own country, having been practically exterminated by some brainless idiot who introduced the mongoose into the island they inhabit. My bird, "Georgie," is a quaint old fellow, and has already formed the subject of an article. He spends his summers at liberty in the garden, and his winters in a big cage in a warm room. He appears to be extremely ancient, and is neither very sound in wind nor strong of wing, but he still manages to enjoy life and is a great character. He takes no interest in any of the other birds and is afraid of most of them, allowing even the little cock Many-colour to bully him. He is, however, quite willing to share his dinner peacefully with rabbits or rats, eating out of the same dish! He dislikes being touched, but is fond of human society, especially of men. He sometimes pulls ladies' skirts and pretends to bite their feet, but rather, I should say, from mischief than real malice. He has a great liking for coming into the house, but is not encouraged, as he knocks over flower vases and inkpots and devours fountain pens, notepaper, and the fruit in the dining-room. He has a passion for indigestible viands, particularly bread and butter, tea, cod-liver oil, ink and tobacco, and, as he not infrequently indulges his tastes when no one is about to restrain him, it is really astonishing that he still survives! His only natural cry appears to be a very harsh and hideous screech, and in addition he possesses a little English conversation, including a most consumptive cough. His plumage is a very glossy green, with blue flights, tail blue washed with green, forehead and cheeks black, centre of breast yellow, and abdomen orange.

I have had several Red Shining Parrakeets, but alas! they mostly belong to the past tense, for they are terribly difficult to acclimatize. My first, a beautiful female, I received from an aviculturist in England. She was a gentle, rather timid bird, and died of swallowing a berberis thorn. I cannot remember that her plumage was different from a male's in any respect. Some writers on aviculture speak of Red Shining Parrakeets as if they were near relatives of the Australian King. Both are green birds, with red heads and breasts, and there the resemblance ends. In voice, flight, and habits generally the Red Shining is no more like a King than it is like a Grey Parrot. My next venture in Red Shining consisted in three newly-imported young birds. They looked well on arrival, and I turned two into an aviary and kept one in a cage. All were dead within a month. The fourth and worst of the same lot was retained by the importer and kept in a cage, and he sold him to me later in magnificent condition. This bird won first prize at Olympia and is still alive. He lives with a female *Aprosmictus sulaensis* and is outdoors all the year round. He is much attached to his mate, but very vicious with human beings. He has two calls—a deep, soft " Hor! " and a loud, harsh screech.

At the end of last winter I received five more Red Shining Parrakeets out of six originally shipped. I thought to myself that now I knew what to do and began to conjure up rosy visions of young Red Shining and Red Shining at liberty. How glorious they would look, and in their own country they are reputed to be good stayers. Clearly the best way to manage newly-imported Red Shining was to put them in cages in a warm room, and allow them some fruit, but not too much. However, " the best laid schemes of men and mice— "; in the first place, the birds were terribly shy. Whenever a person entered the birdroom, they rushed into a corner of the cage and tucked their heads under their breasts to shut out the horrid sight. Then one died; post mortem revealed the old enemy, chronic enteritis; a few weeks and another died; this time aspergillosis; a few weeks more and a third died—chronic enteritis again. This was awful; my rosy visions vanished, and " We all go the same way home " seemed to be the programme to be anticipated. The only crumb of comfort in the melancholy exodus lay in the fact that all three of the dead birds were cocks. It was clear that they could not possibly do worse, however I treated them, and as it was now May, my thoughts turned to outdoors (about this time No. 4 was reported off its food). It seemed useless to give such nervous birds complete liberty, so I prepared a big, sunny, grass-grown aviary for their reception, filling the dark part of the shelter with branches. I thought they would probably spend all their time sulking on the ground in the corner, but although they retreated hastily into the shelter they kept to the branches. Later, when everything was quiet, I saw them exploring the flight, obviously hoping to find a way to complete freedom, but not wholly dissatisfied with their surroundings. They also began to utter their call—a short, loud cry, something between a croak and a squawk. From that day to this they have never " looked back;" they are still very nervous and retreat hurriedly into the furthest corner of the shelter, if closely approached, but they will tolerate the sight of human beings up to within 20 yards. In July I was surprised to see the smaller bird feed the other, so I am in hopes that I have a true pair, especially as the bird that was fed is the master, and did not seem to solicit its companion's attention. Red Shining are very active birds; they fly to and fro and walk about with long, quick strides. and the action of a pheasant, rather than a parrot. I never see them on the ground, though "Georgie" is very terrestrial in his habits.

Experience and observation, coupled with what I have heard from the friend who sent the birds and had much better luck with them than I, makes me think that the right way to treat newly-imported Red Shining is to turn them out all together in a room, giving them a rich and varied diet and not stinting them of anything. Caging is bad for such active, nervous birds; it impairs their health and lowers their spirits. Anyhow, that is what I shall do if I ever receive a fresh lot. One has to live and learn!

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Four Species of Lovebirds.

By J. W. Bearby.

Lavender-headed Lovebird (*Agapornis cana* [presumably]): I purchased my pair in October 1921, when they were in very pitiable condition, with flights badly broken, etc.

I have found them very timid and most difficult to tame; when approached they crouch in a corner of their flight and utter repeatedly a snake-like hiss. The hen in particular, in spite of this timidity, is very pugnacious toward all the other occupants of the flight, the largest of which are a pair of Plumheads. An amusing and curious mode of attack is. by rolling over on her back and fighting with claws and beak—thus she invariably manages to frighten any opponent.

Flight very rapid and climbing powers simply wonderful.

Their favourite seed are: white millet, good fat oats and hemp. Millet sprays they are particularly fond of, and they can easily eat a large spray per diem. Cracked sunflower they relish (no need to crack it. Ed.). A bundle of seeding grass is a special treat, and they spend hours pulling it to pieces.

I have repeatedly seen the male feeding his mate, but, so far, they have made no attempt to go to nest.

In this flight I have bred Goldfinch-Linnet hybrids, and the Lavender-heads in no way interfered with the Linnet during the period of incubation.

RED-FACED LOVEBIRD (*Agapornis pullaria*): The beauty of this charming species was too great a temptation when I first saw them and I fell; their beautiful colour harmony—brilliant contrasted with their vivid red head and beak—was quite beyond resistance, and I brought them away with me.

This species, when first imported, is undoubtedly very delicate. I purchased mine last February, during very frosty weather; the hen speedily went West. I replaced her and kept the pair in my dining-room, where a fire was continually burning; they both speedily improved in plumage, and became very tame. Both birds bathe and invariably choose a sunny day for their ablutions. They are murderously inclined to all other birds with whom they come in contact, and, in fact, often deal each other severe blows with their powerful beaks.

Their demeanour is not lively; they strike one as being generally stupidly inactive, but have occasional bursts of vivacity when their deportment is very amusing. They have never made any attempt to go to nest, but I have never encouraged it as in the case of all my lovebirds they were newly-imported, and before attempting their breeding my idea was to study their wants and get them thoroughly acclimatised for another season.

I feed on equal parts of canary, white millet, oats, and a little hemp; they are passionately fond of millet sprays, in fact, when this food is available, will eat little else, and, I should say, would easily thrive thereupon. As spring advanced they readily took to grapes, pear, and any fruit of a sweet, juicy nature; groundsel, seeding grass, and lettuce they eat freely too.

ROSY OR PEACH-FACED LOVEBIRD (*Agapornis roseicollis*): These are really a larger and paler edition of *pullaria*—their soft green plumage, vivid blue back-patch, and undoubtedly peach-coloured face, easily make them first favourites with me, and they are undoubtedly the most attractive, vigorous and hardy of the *Agaporni*.

They have an ear-piercing note, but this, to me, is a cheerful contrast to their quieter brethren. My pair are in perfect plumage, and they have shown a decided inclination to go to nest—they live in a cage 2ft. x 2ft. x 4ft. high—but, as my aviary accommodation is, this season, decidedly limited, I have not been able to give them full scope. I should imagine this species is not at all difficult to breed, at least, with my pair I have every hopes of success next season.

Their main dietary is a mixture of canary, large millet, oats and hemp; they are very fond of the latter, but I give them very little, for if their liking is gratified they become fat and gross very quickly, and are then very sluggish. As extras they get one millet spray per diem, with an occasional bunch of seeding grass, and this seems to fulfil all their wants. Fruit is invariably in their cage, but they practically ignore it, strawberries beng about the only fruit I have seen them touch.

BLUE-WINGED LOVEBIRD OR PASSERINE PARROTLET (*Psittacula passerina*): These active little birds are unlike any of the preceding trio in their actions, and I believe they must belong to a different group. They are very active indeed, and to be seen to advantage must be in a large aviary, where the cock can display his brilliant blue rump and wing patches in flight.

My pair are practically hardy and in finest condition. Their sleek green plumage, peering black eyes, and flesh-coloured beaks form a pleasing combination, and an equally pleasing contrast to the other occupants of the flight. Although they took possession of a large husk, nothing has resulted, not even eggs. Their mode of hollowing out a husk by scratching and tearing pieces off with their beaks is similar to that of the Budgerigar. They never attempted to carry any nesting material, and I rather think a small rustic log nest with a spout to run down would suit them best. They are very active on the ground, very quick in flight, and quite inoffensive and harmless to other birds. I consider them a charming addition to any mixed series of birds.

Their bill of fare is a very simple matter: oats, canary, millet, hemp, and even sunflower and safflower seeds are eaten. Sweet fruits of any kind they eat freely, and nothing in the green-food line seems to come amiss to these active little parrotlets.

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Visits to Members' Aviaries.

By Wesley T. Page, F.Z.S., M.B.O.U.

On August 18th the writer commenced a fifteen days' vacation among three members' aviaries. Two days were spent with Mr. H. E. Bright at Woolton, Liverpool, eleven days with Capt. G. E. Rattigan, S. Devon, and two days with Mr. Shore Baily at Westbury, and I now propose describing their aviaries and birds in the order given above.

Mr. Bright's Aviaries and Birds: Mr. Bright gave a detailed description of his aviaries, with photos, in Bird Notes for March and April 1921, and thereto I must, in the main, refer my readers as to the aviaries themselves; certainly this description does not at all flatter the aviaries.

The Main, or Large Aviary (No. 1).—This is an admirable aviary in every respect, fully equipped for the comfort of the birds, and I was very pleased to note that Mr. Bright had fully gripped the main essential of a really good Foreign Bird Aviary, viz: that the shelter is fully as important as the flight. This will be realised when I state that the shelter has a ground area of 27 feet by 25 feet, and is fully 15 feet high at the ridge of its span roof. The flight is 52 feet by 30 feet, and about 15ft. high at the ridge. The shelter is a substantial building, being constructed of glazed bricks for a height of 3ft. all round, and on this low wall the wooden superstructure is erected. It is well lighted by windows at the front and along one side, and one large skylight and four smaller ones in the roof. As you enter the shelter a portion about 8ft. wide is partitioned off by a wire netting screen, and at the end of this portion are two decent flights against the back wall—several large cages hang on the wall for new arrivals, etc.—apart from these fixtures this portion forms one large flight, in which at the time of my visit certain overflow birds were disporting themselves. This portion is termed the birdroom for the purpose of these notes. The other portion of this building, some 19 x 25 feet, forms the shelter proper. Here the bulk of the food vessels are placed, also very many tree branches are fixed reaching from floor to roof, and forming a thicket of perching accommodation some 6 x 25 feet. The roof of this building overhangs into the flight, forming a verandah, which is tiled, and makes a pleasant observation post in any weather. Under this verandah were several nests, one containing several lusty young Blue Robins (*Sialia sialis*), judging by the noise they made. The flight is planted with numerous trees and shrubs, and the roof's standard covered with various climbing plants, mostly hops. Grass and other herbage irregularly cover the open ground, the earth beneath the bushes being mostly bare of growth; a happy combination which fully meets the numerous collection of birds which occupy this practical avian paradise.

Herein I noted the following species:—

FINCHES: Cuban (*Phonipara canora*), Zebra (*Taeniopygia castanotis*), Long-tailed Grass (*Poephila acuticauda*), Masked Grass (*P. personata*), Lavender (*Lagonosticta caerulescens*), Cutthroat (*Amadina fasciata*), Red-headed (*A. erythrocephala*), Chestnut-breasted (*Munia castaneithorax*), Pectoral (*M. pectoralis*).

DOVES: Diamond (*Geopelia cuneata*), Peaceful (*G. placida*), Isabelline (*Turtur isabellina*), Geoffroy's (*Peristera geoffroyi*), Palm (*Turtur senegalensis*), Masked (*Oena capensis*), Plumed Ground (*Lophophaps leucogaster*), Dwarf Ground (*Chamaepelia griseola*).

FRUIT-PIGEONS: Lilac-crowned (*Ptilopus coronulatus*) and a lovely pair of uncertain species.

CARDINALS: Green (*Gubernatrix cristata*), Virginian (*Cardinalis cardinalis*), and Pope (*Paroaria dominica*).

WHYDAHS: Red-collared (*Penthetria ardens*), Paradise (*Steganura paradisea*), Giant (*Choera procne*), and Queen (*Vidua regia*).

WEAVERS: Orange (*Pyromelana franciscana*), Napoleon (*P. afra*), Taha (*P. taha*), Crimson-crowned (*P. flammiceps*), and Red-billed (*Quelea quelea*).

MANNIKINS: Rufous-backed (*Spermestes nigriceps*), Silverbills (*Aidemosyne cantans*), and White Java Sparrow (*Munia oryzivora*).

WAXBILLS: Avadavat (*Sporaeginthus amandava*), Golden-breasted (*S. subflavus*), Orange-cheeked (*S. melpodus*), Grey (*Estrelda cinerea*), Blue-breasted (*E. angolensis*), Cordon Bleu (*E. phoenicotis*).

BUNTINGS: South American (*Species incert*), Nonpareil (*Cyanospiza ciris*), Indigo (*C. cyanea*), Red-crested Finch (*Coryphospingus cristatus*), Rainbow (*Cyanospiza leclancheri*), and Rock (*Fringillaria tahapisi*).

GROSBEAKS: Blue (*Guiraca cyanea*), Yellow-bellied (*Mycerobas melanoxanthus*), Large (*species incert*) and Bluish (*Spermophila caerulescens*).

ETCETRAS: Pekin Robin (*Liothrix luteus*), Baltimore Oriole (*Icterus galbula*), Blue Robins (*Sialia sialis*), Migratory Thrush (*Turdus migratorius*), Scarlet Tanager (*Rhamphocoelus brasilus*), Pectoral Tanager (*Euphonia pectoralis*), Chinese Quail (*Excalfactoria chinensis*), White-cheeked Bulbuls (*Otocompsa leucogenys*).

YOUNG BIRDS on the wing and fending for themselves.

Many young birds had perished, almost as soon as they left the nest, owing to the prevailing cold, wet weather, but I noticed the following in some numbers:

Peaceful Doves
Masked Doves
Diamond Doves
Isabelline Doves
Geoffroy's Doves
Cutthroats (a small flock)
Zebra Finches (a small flock)

The sound of young calling for food was incessant from all parts of the aviary, and if the remaining portion of the season be fairly fine and sunny the above will be added to materially.

SPECIES NESTING AND FEEDING:

Virginian Cardinal
Blue Robin
Cuban Finches
Zebra Finches
Cutthroats
Geoffroy's Dove
White-breasted (*spec. incert*)*
Palm Doves
Blue Grosbeaks
Long-tailed Grassfinches

I am not describing these episodes, nor the young birds fully, as I wish Mr. Bright to do this later.

In this fine aviary I watched the parent birds, from the verandah, collecting gentles and other insects, then off to the nests to meet the wants of their offspring, their arrival being heralded by the squalling of their young—sweet sounds for the aviculturist—till their lusty appetites were satisfied. The panorama of bird life was most fascinating, as one species after another flashed into the picture: the wee Chinese Quail foraging amid the grass and herbage, or scampering hurriedly across the verandah tiles to the shelter for seed; the flight of the lovely and many-hued Lilac-crowned Fruit-Pigeon (as brilliant as the Gold-fronted *Chloropsis*), the mannerisms and characteristics of the many species, the harmony of their song—cooing of doves, trilling of finches, liquid notes of Pekin Robin, etc.—making a complete whole of absorbing interest, a pleasing and interesting picture burnt into the memory beyond the power of time to eradicate—but time and space alike forbid lingering, and the pen of Mr. Bright must fill the gap of descriptive detail.

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*I could not get to Brit. Museum nor Zoo Library, so sent a rough sketch to the former authorities and they believe the species to the *Phlogoenas margaritae* from New Guinea.

A letter from Mr. Bright, dated September 20th, states that this pair have two fully pledged young almost ready to leave the nest.—W.T.P.

In the Birdroom (part of shelter) I noticed flying at large a pair of Red Rosella Parrakeets (*Platycercus eximius*), a single Mealy Rosella (*P. pallidiceps*), and a pair of Green Cardinals (*G. cristata*). In the two smaller flights were pairs of Bauer's (*Platycercus zonarius*), and Adelaide Parrakeets (*P. adelaidae*).

Adjoining this Aviary (No. 1) were three other flights, Nos. 2, 3, and 4, respectively.

No. 2 Aviary.—This aviary is really spacious, and has an open-fronted lean-to shed at the back; like No. 1 there is an abundance of living cover and ground herbage, and there are few species which would not feel inclined to reproduce their kind when located therein.

Here I saw the following species:

1 pair Red-shouldered Blackbirds (*Agelaius phoeniceus*).
1 Orange-headed Troupial
1 Migratory Thrush (*Turdus migratorius*).
1 pair Brazilian Pigeons (*Columba speciosa*).

The pair of Brazilian Pigeons are, I believe, new to aviculture; they are very handsome, though not exactly brightly coloured, but they strike the eye at once and arrest one by their beauty.

General colouration dark, rich, vinous-brown (almost cinnamon), with the whole head grey, picked out laterally, with fine distinct black lines; this, combined with a red beak, gives a colour harmony that must be seen to be fully appreciated. This pair of birds were brought over privately by Maj. A. E. Snape, when returning home from Brazil last year. They have just come into adult plumage, and should breed next season.

No. 3 Aviary.—This is similar to No. 2, but not so wide, being approximately 30 x 15 feet, with a shelter at the far end.

Here were but two pairs of birds—a pair of Virginian Cardinals (*Cardinalis cardinalis*), which have fully reared one young bird; and a pair of Crested Doves (*Ocyphaps lophotes*), which have nested but not reared any young this season, the nest being drowned out during heavy rain.

No. 4 Aviary.—This is a replica of No. 3, and a fine pair of White-crested Jay Thrushes (*Garrulax leucolophus*) enjoy sole occupancy, yet up to the present have made no attempt to go to nest. They are bold, audacious birds, full of character and activity, and are most interesting to sit and watch, for they court observation. Their song (laugh?) is very similar to that of the Laughing Kingfisher, but not quite so loud; however, it certainly is not inaudible!

The Upper Aviaries: No. 1 and 2 are merely open wire flights, with small cupboard-like shelters, for parrakeets. No. 1 was unoccupied, while No. 2 housed a pair of Pennant Parrakeets (*Platycercus elegans*); these were a pair of fine robust birds, in good health and vigour, but heavily in moult.

These two aviaries were separated from a range of converted Pigeon Houses, forming aviaries 3, 4, 5, 6, and 7 of the upper series. These have, as yet, no outer flights, but these are in contemplation and will, I opine, be *un fait accompli* for next season.

Pigeons, a former hobby of Mr. Bright's, which is not entirely

No. 3 was occupied by a small flock of Bald-faced Tumbler relinquished. In the house are a goodly array of challenge cups, etc., trophies of Mr. Bright's prowess with these birds in the past.

No. 4 contained a pair of Stanley Parrakeets (*Platycercus icterotis*), a Migratory Thrush (*Turdus migratorius*), and a Geogroy's Dove (*Peristera geoffroyi*), all in the pink of condition.

No. 5 was the home of several pairs of blue-bred Green Budgerigars (*Melopsittacus undulatus*) and several of their progeny; also a pair of Cockateels (*Calopsittacus novae-hollandiae*), which have reared young this season.

No. 6 housed fine pairs of Diamond Doves (*Geopelia cuneata*), and Dwarf Ground Doves (*Chamaepelia grisea*).

Lastly No. 7 confined a handsome pair of Blue Jays (*Cyanocitta cristata*) whose full beauty one had to imagine as they were in full moult, and they needed to be in an open flight for the play of light to bring out their gorgeous beauty in full measure.

This brings my description of these fine aviaries and birds to a conclusion. The social side of my visit will not interest my readers, though it certainly did our two selves, as we yarned of avicultural experiences generally—many avian battles were fought o'er again. I spent two days and three nights at Woolton Tower and bade good-bye to my host and hostess on the Monday morning at Lime Street Station, Liverpool, where I entrained for Newton Abbot. *To be continued.*

The Breeding of the New-Guinea Quail

(*Synaceus plumbeus*).

BY W. SHORE BAILY, F.Z.S.

My first introduction to these attractive little birds took place two years ago at Hamlyn's. Whilst look around his cages I noticed in one of them a rather sombre-looking bird brooding an egg. I recognised it as a Quail of sorts, but as it was a species I had not seen before, I decided to buy it. Having been kept for so long in a small cage it was very tame, and it would come on one's hand for mealworms when called. It was quite a charming little pet. I kept it indoors all winter, where it laid one or two more eggs. In the spring I turned it into an outdoor aviary, giving it, as a mate, a cock Common Quail, but although the latter paid her every attention, she would have nothing to do with him for a long time. At last, when she did make up her mind to suffer his attentions, she suddenly succumbed to an attack of pneumonia.

This Spring the London Zoo offered me another pair, and I was very glad to get them. They were extraordinarily wild, and, on being turned into the aviary, in which there was a good deal of cover, they promptly disappeared, and it was only occasionally that I caught a glimpse of them for a moment.

About the middle of June I felt sure that the hen was sitting, and a careful search revealed the nest, which was very well hidden in a clump of grass. This contained seven eggs, somewhat smaller than those of the Californian Quail, and very large for the bird. These were covered with fine spots, and I have occasionally seen those of the Californian bird marked very like them.

On June 24th I surprised the hen with three young ones, apparently about a couple of days old. The four eggs left in the nest had all young ones just ready to hatch; something had probably disturbed the hen, causing her to leave the nest too soon. I saw no more of either the young ones or their parents

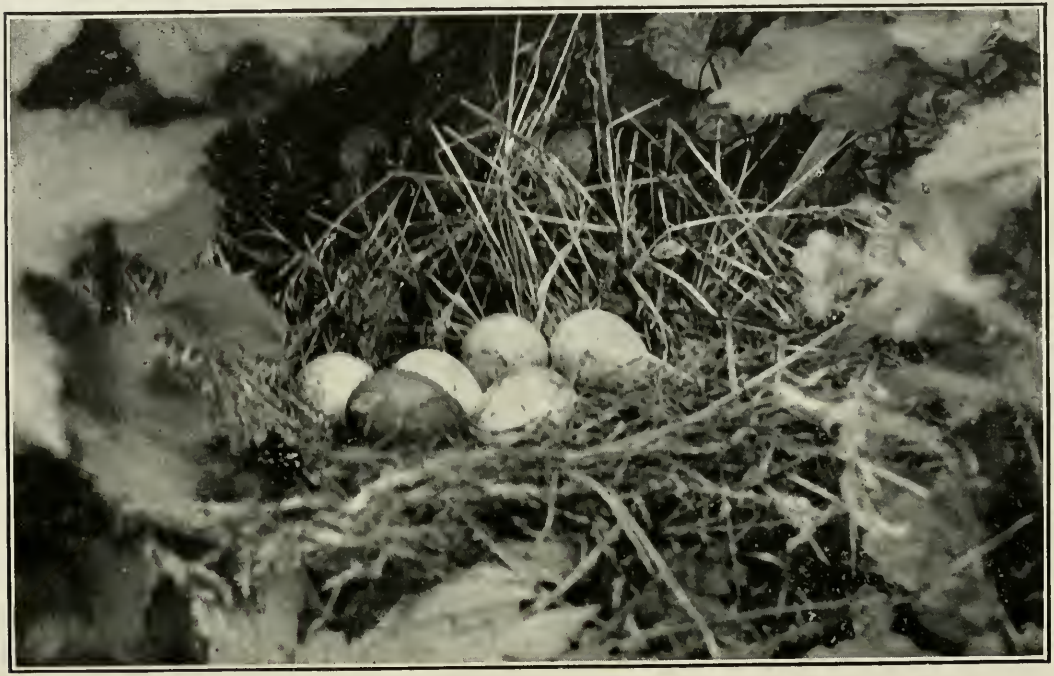

Photo by W. Shore Baily, F.Z.S.

Nest and Eggs of the Plumbeous Quail.

until July 2nd, when I surprised them together scratching in the run. I again saw them a week later, and again on the 15th; on the last occasion they got up at my feet and flew strongly across the aviary. Shortly after this I went for my summer holiday, returning for one day on August 10th. Suspecting that the hen was again sitting, I was hunting through the long grass, when I had the misfortune to step upon and kill the young cock. He was practically in full adult plumage, and I could only tell him from the old bird by the difference in the colour of the eye, which in the adult is crimson, and in the juvenile reddish-brown.

At this time the hen was undoubtedly sitting, although I could not find the nest in the time at my disposal, but on my return on August 21st, I found it under a tuft of grass on the edge of the pond, and congratulated myself on not having stepped on it, when looking for it on my first visit. Every egg had apparently hatched, and a few days afterwards I caught sight of five little ones. At the time of writing, August 30th, they are quite nice little birds, but still only very occasionally visible.

The cock bird is rather bigger than the Indian Jungle Quails and is plum-coloured all over; the hen is mottled much like the European Quail, but much darker in ground colour. They are nice aviary birds.

Notes on Jungle and other Wild Life.

By Dr. Casey A. Wood, M.B.O.U.

Continued from page 163.

The approach to the Falls was exceedingly interesting and attractive. Charles Waterton (*Wanderings in South America*), the naturalist word-painter, says of it:—" He who can distinguish the beauties of uncultured nature, and whose ear is not shut to the wild sounds in the weeds, will be delighted in passing up the river Demerara. Every now and then the maam (tinamou) sends forth one long and plaintive whistle from the depths of the forest, and then stops; whilst the yelping of the toucan and the shrill voice of the bird called " pi-pi-yo " (Gold or Greenheart Bird) are heard during the interval. The campanero, or Bell Bird, never fails to attract the attention of the passenger; at a distance of nearly three miles you may hear this snow-white bird tolling every 4 or 5 minutes, like the distant convent bell. From six to nine in the morning the forests resound with the mingled cries and strains of the feathered race; after this they gradually die away!"

In this connection I must point out that few are the birds whose notes or calls are similarly interpreted by even a majority of careful and competent observers. The fact reminds me of the differences of opinion expressed on viewing the newly-painted portrait of a friend; each of us sees it differently. And so with bird notes; each of us hears them differently. We had a concrete example of this truth as we five sat in our boat on the upper Potaro listening to and watching carefully the vocal performance—for such it deserves to be designated—of numerous Bell Birds (*Vavasoria alba*). They are snow-white beauties, about the size of a large blue jay, and have a curious, long, black, erectile, pipe-stem-like wattle, partly covered with white feathers, attached to the centre of the forehead. After listening for an hour or so to the bird's double-note, or "tolling" call, each of us was asked to say what well-known sound it resembles. None of us thought it recalled Waterton's "distant convent bell;" one said "it's exactly like the sound caused by a single stroke on a triangle;" another "one stroke of a blacksmith's hammer on his anvil;" still another "a single blast of a policeman's whistle, heard a hundred yards away;" another "one blow on a medium-range tube of the xylophone;" and fifthly, "a stroke on a loud dinner gong." J. J. Quelch (Chubb's *Birds of British Guiana*, Vol. II., p. xxxi.) adds something to his confusion of similes by giving it as his opinion that—the campanero's call varies with age and sex.

So numerous and so beautiful were the brids we saw on this trip that the necessarily brief references to them in this letter might better, perhaps, not have been made, partly because the tale may be fatiguing and partly because you may think that those mentioned are the chief ones to excite wonder and admiration, although the truth is that there are dozens of others equally brilliant and even more remarkable. Just consider a few of the latter—the cotingas, for instance, of which the scarlet variety, ablaze with reddened areas from head to tail; the purple-breasted—throat and breast of a deep purple, wings and tail black, and the remainder of his body a beautiful shining blue! Finally, the Pompadour Cotinga (*Xipholena punicea*) is entirely purple except that his wings are white edged with brown.

Visualize, also, the toucans and the toucanets. One thinks chiefly of their enormous bills, but even these are gorgeously painted in tints that are repeated in their still more brilliant plumage. Then the iridescent macaws (those studies in splendid pigmentation) as well as the other highly tinted parrots and parrakeets; likewise the lovely trogons and jacamars, in addition to flocks of snowwhite egrets, scarlet ibises, eagles, hawks and water birds—all these form but a small fraction of the colonial avifauna.

Kaietour (Patamona word meaning Old Man's Fall) is really pronounced Ky-too-eh, but as the last syllable is accompanied by a sort of subdued click, which none but an Indian can indicate, the generally received spelling is about as nearly correct as we are likely to get it.

The fall was discovered in 1870 by Barrington Brown, Government Surveyor. Sir Everard im Thurn (*Amongst the Indians of Guiana*) visited it during the dry season of 1878. He then remarked that in his opinion the entrance to the Kaietour gorge—at Amatuk—furnishes the most beautiful scenery of this lovely tropical river; and all our party agreed with him. "If," says he, "the whole valley of the Potaro is fairyland, then the Kaietour Ravine is the penetralia of fairyland." Of the fall itself, seen close at hand and from above, he exclaims "Then, and only then, the splendid, and in the most solemn sense of the word, awful beauty of the Kaietour burst upon me. Seven hundred and fifty feet below, encircled by black boulders, lay a great pool, into which the column of white water, graceful as a ceaseless flight of innumerable rockets, thundered from my side. Behind the fall, through the thinnest parts of the veil of foam and mist, the great black cavern made the white of the water look yet more white."

This was during the dry season, when comparatively little water rolled into the deep gorge. However, a second visit was made when the Potaro was in flood, at the end of a rainy season, with an entirely different picture:—

"It was then beautiful and terrible, but now it is something which it is useless to try and describe. Then a narrow river, not a third of its present width, fell over the cliff in a column of white water, and was brought into startling prominence by the darkness of the great cave behind, and this column of water, before it reached the small black pool below, had narrowed to a point. Now an indescribable, almost inconceivable vast curtain of water—I can find no other phrase—(some 400 feet in width) rolled over the top of the cliff, retaining its full width until it crashed into the boiling water of the pool, which filled the whole space below; and at the surface of this pool itself only the outer cave was visible, for the greater part was beaten and hurled up in a great high mass of surf and spray."

There are several projecting rocks from which mile upon mile of the river's course at the bottom of the canon can be seen from above. Unlike the cliffs of the Yosemite and Niagara, the deep water-worn cleft of the Potaro is completely and permanently verdure-clad with vines, mosses, trees, shrubs, bromeliads etc., from the water's edge to the plateau above. The constant fight for life in the tropical forest, with its everlasting springtime, leaves few areas free of plant growth, and this marvel adds greatly to beauty and charm of tropical panoramas. The abrupt walls of the Kaietour gorge also bear thousands of nany-coloured flowers, while up, down and across the abyss fly macaws, Amazon parrots, cassiques (tropical orioles), eagles, hawks and numerous other birds. I saw many swallows skimming the surface of the foaming waters, but, although they are reported as flying past the wall of falling water into the dark cavern behind it, none of our party witnessed that phenomenon.

The bed of the river below the great fall is dotted here and there by a number of round and oval islets that recall the wicked Bishop Hanno's island on the Rhine except that the castellated super-structures of the Potaro resolve themselves, by the aid of a glass, into the usual trees and vines.

To be continued.

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Records of Birds which have Bred in Captivity.

By Dr. E. Hopkinson, D.S.O., M.A., M.B., F,Z.S., etc.

PLOCEIDAE.

81 PIN-TAILED WHYDAH.

89. LONG-TAILED WHYDAH, *Diatropura progne.*

90. RED-COLLARED WHYDAH, *Coliostruthus ardens.*
And Hybrids.
RED-COLLARED WHYDAH × YELLOW-BACKED WHYDAH.

91. WHITE-WINGED WHYDAH, *C. albonotata.*

92. JACKSON'S WHYDAH, *Drepanoplectes jacksoni.*
SHAFT-TAILED WHYDAH, *D. regia.*
RED-SHOULDERED WHYDAH, *D. axillaris.*
Abroad, See note, B.N. 1918, 156.

93. COMBASOU.

94. CRIMSON-CROWNED BISHOP, *Pyromelana flammiceps.*
Abroad. I think also a recent success in England, but have not the record.
And Hybrids.
CRIMSON-CROWNED BISHOP × RED-COLLARED WHYDAH.

95 BLACK-BELLIED BISHOP, *P. nigriventris.* Abroad.

96. GRENADIER BISHOP, *P. oryx.*

97 ORANGE BISHOP, *P. franciscana.*

98. KAFFIR FINCH, *P. capensis.* Abroad.

99. TAHA BISHOP, *P. taha.*

100. NAPOLEON BISHOP, *P. afra.*

101. POKERHEAD WEAVER, *Quelea erythrops.* Abroad.

103 TWO-COLOURED MANNIKIN, *Lepidopygia bicolor.* Abroad.
And Hybrids
TWO-COLOURED M. × AFRICAN SILVERBILL. Abroad.

104. RUFOUS-BACKED MANNIKIN, *L. nigriceps.*

105 BIB FINCH, *L. nana.*

And Hybrids.
BIB FINCH × INDIAN SILVERBILL.
× BRONZE MANNIKIN.

106. BRONZE MANNIKIN. Abroad.
And Hybrids.
BRONZE M. × RUFOUS-BACKED M.
× MAGPIE MANNIKIN.
× BENGALESE.
BRONZE MANNIKIN
————————————hybrid × BENGALESE.
BENGALESE

107. MAGPIE MANNIKIN, *Amauresthes fringilloides.*
And Hybrids.
MAGPIE M. × BENGALESE.
× SILVERBILL (probably AFRICAN). Bright, 1917.
See B.N. 1917, 245.

108. QUAIL FINCH, *Ortygospiza polyzona.*

109 W. AFRICAN QUAIL FINCH, *O. atricollis.* Abroad.

110. FIREFINCH.
And Hybrids.
FIREFINCH × SPOTTED FIREFINCH. First breeder Lucas, 1917.
See B.N. 1917, 250.
SPOTTED FIREFINCH, *Lagonosticta rufopicta.* Abroad.
In France: Mayer. See B.N. 1920, 254.
GREY-BACKED FIREFINCH, *L. polionota* (?). Abroad.
In France: Mayer. See B.N. 1920, 254.

112 GREEN AVADAVAT.

113. CUTTHROAT.
And Hybrids.
CUTTHROAT × RED-HEADED FINCH.

114. RED-HEADED FINCH.

115. DIAMOND SPARROW.
And Hybrids.
DIAMOND SPARROW × ZEBRA FINCH.

116 PAINTED FINCH, *Emblema picta.*

117. MELBA FINCH.
And Hybrids.

MELBA FINCH × CORDON BLEU. Abroad. In France, Decoux, 1919. See A.M. 1919, 110.

118. AURORA FINCH, *Pytelia phoenicoptera.*

119. ZEBRA FINCH.
And Hybrids.
ZEBRA FINCH × BICHENO F. Abroad
× AFRICAN SILVERBILL. Page.
× LONG-TAILED GRASSFINCH.
× ST. HELENA WAXBILL. Abroad teste Page.

120. BICHENO FINCH.
And Hybrids.
BICHENO × ZEBRA FINCH.

121. BLACK-RUMPED BICHENO FINCH.

122. AVADAVAT.
And Hybrids.
AVADAVAT × ZEBRA WAXBILL.

123 ZEBRA WAXBILL, *Sporaeginthus subflavus.* (A real record required).

124 ORANGE-CHEEK WAXBILL.

125. JAVA SPARROW.
And Hybrids.
JAVA × CUTTHROAT. (Record needs fuller details, etc.)
× AFRICAN SILVERBILL.

126. MAJA FINCH. Abroad.

127. TRICOLOURED MANNIKIN, *Munia malacca.* Hybrid record only.
TRICOLOURED MANNIKIN × BENGALESE.

128. CHOCOLATE MANNIKIN, *M. atricapilla.*
And Hybrids.
CHOCOLATE M. × MAJA. ??Abroad only.

129. CHESTNUT FINCH, *M. castaneithorax.*
And Hybrids.
CHESTNUT FINCH × INDIAN SILVERBILL. A recent record. Bright, B.N. 1917, 244.

130. YELLOW-RUMPED FINCH, *M. xanthoprymna.*

131. NUTMEG FINCH.

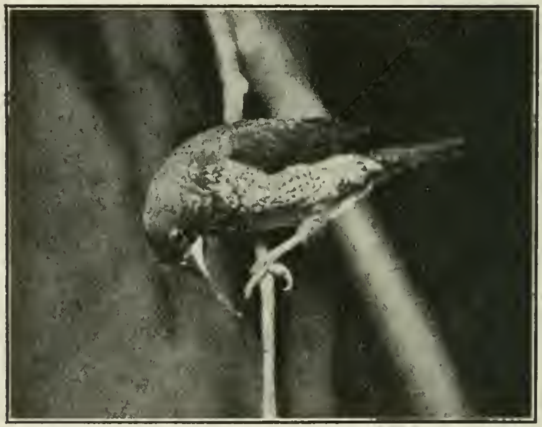
And Hybrids.
NUTMEG × BIB FINCH.
BENGALI.

132. PECTORAL FINCH, *D. pectoralis.*

133. STRIATED FINCH, *Uroloncha striata.*
And Hybrids.
STRIATED F. × BENGALESE.

134. BENGALESE.
And Hybrids.
(See P.S. (B.) p A. above).
BENGALESE × SHARP-TAILED FINCH.
BENGALESE × SHARP-TAILED FINCH.
× STRIATED FINCH.
× NUTMEG FINCH.
× BRONZE MANNIKIN.
× BIB FINCH.
× CHESTNUT FINCH.

Of the above all except "Bib Finch" need fuller records.



Hybrid Bengalese × Nutmeg Finch.

135 SHARP-TAILED FINCH.
And Hybrids.
SHARP-TAILED FINCH × BENGALESE.

136. CHERRY FINCH, *Aidemosyne modesta.*

137. INDIAN SILVERBILL.

And Hybrids.
INDIAN SILVERBILL × BIB FINCH.

138 AFRICAN SILVERBILL.
And Hybrids.
AFRICAN SILVERBILL × OLIVE FINCH. (Note: *Ploceidae* × *Fringillidae*).
× SHARP-TAILED FINCH.
× NUTMEG FINCH. See B.N. 1920. 178
× BENGALESE. Abroad.

139. SYDNEY WAXBILL, *Aegintha temporalis*.

140 RUFOUS-TAILED GRASSFINCH, *Bathilda ruficauda*.

141. LONG-TAILED GRASSFINCH, *Poephila acuticauda*.
And Hybrids.
LONG-TAILED GRASSFINCH × MASKED GRASSFINCH.

142. PARSON FINCH, *P. cincta*.
And Hybrids.
PARSON FINCH × LONG-TAILED GRASSFINCH.
× BENGALESE. Abroad.

143. MASKED GRASSFINCH, *P. personata*.

144. GOULDIAN FINCH. (Black- and Red-headed).

145. PIN-TAILED NONPAREIL, *Erythrura prasina*. Abroad.

146. PARROT FINCH.
And Hybrids.
PARROT FINCH × TRICOLOURED PARROT F. Abroad.

148. TRICOLOURED PARROT FINCH. Abroad.

149. CRIMSON FINCH, *Neochmia phaeton*.

151. GREY WAXBILL.
And Hybrids.
GREY WAXBILL × CRIMSON-RUMPED W. *Estrilda rhodopyga*.
Abroad.

153. LAVENDER WAXBILL.

154. CORDON BLEU.

155. BLUE-BREASTED WAXBILL.

And Hybrids.
BLUE-BREASTED WAXBILL × CORDON BLEU.

156. SCALY-FRONTED WEAVER, *Sporopipes squamifrons.*
See P.S. (D.) page above.
FRONTAL WEAVER, *S. frontalis.* Abroad.

157. BUFFALO WEAVER. Abroad.

158. CHESTNUT-BACKED WEAVER, *Melanopteryx castaneifusca.* Abroad.

159. RUFOUS-NECKED WEAVER, *Hyphantornis cucullatus.*
And Hybrids.
RUFOUS-NECKED WEAVER × SPOTTED-BACKED W., *H. spilonotus.*

160. Nothing to add to this record. B.N. 1920, 253.

162. BLACK-HEADED WEAVER, *Sitagra melanocephala.*

163. CABANIS' WEAVER, *S. cabanisi.* Abroad.

164. LITTLE MASKED WEAVER, *S. luteola.*

165. BLACK-FRONTED WEAVER, *S. velata.*

166. HALF-MASKED WEAVER, *S. vitellina.*

167. CAPE GOLDEN WEAVER, *S. capensis* or *olivacea.*

168. MADAGASCAR WEAVER, *Foudia madagascariensis.* Abroad.

169. BAYA WEAVER. Abroad.

170. BENGAL BAYA. Abroad.

171. MANYAR WEAVER. Abroad.

To be continued.

◆

A Java Sparrow, (*Munia oryzivora)* Episode.

By Wesley T. Page, F.Z.S., M.B.O.U.

I have always had a liking for this, sol-called, clumsy and heavily built species. It has a very handsome and striking appearance in a large wilderness aviary among a mixed series ot birds, moreover, it is nearly always in the picture. This liking began in the early days of my avicultural experience, and it has lasted through the trail of years right up to the present time, though the freshness of early acquaintance has passed.

I have bred a goodly number of them one time and another—I am writing only of the wild Grey Java Sparrow—though it is a shy breeding species in captivity, unless it is crossed with the White variety, when the reverse becomes the case. But it is to record a special episode that I am penning these notes. In 1916, among a consignment of Indian birds, I received quite a few Grey Java Sparrows, and yielding to the aforementioned liking for the species I put what I believed to be three pairs into my large wilderness aviary, and, so far as I know, not a sngle youngster has been reared till the present season—in fact, I do not think any of the pairs ever made any attempt to go to nest, which is quite in accord with the tradition of the species.

On September 2nd, going into the aviary to have a look at my birds, on my return from a fortnight in lovely Devon, I was surprised to see two young Java Sparrows on the wing, and a short search revealed the nest in a Hartz travelling-cage in the covered part of the flight; there may be more, but I have not seen others as yet. The point of these notes is that one of these youngsters has an entirely black head and neck, while the other is quite normal; hereby hangs a tale!

In the course of years I have successfully reared over a hundred of this species, and *never before* have I had a black-headed youngster. The normal juvenal is similar to that of the adults, but much lighter and with the different colour areas not sharply contrasted as in the adults. In colour, the juvenal beaks vary considerably, some being quite blackish with pinkish patches gleaming through, others almost white, streaked with black and pinkish tints showing here and there.

I have said I never had a black-headed youngster before—true, but many years ago I possessed an adult exactly similar to my present young bird.

In the " green " and palmy days of yore a good few black-headed specimens used to be seen among the dealers' stocks of this species, and many dealers used to sell these as hens, and in my greenness I was " had " on one occasion, and I came away with two, said to be a pair, one with head and neck shining black, and the other a normal white-cheeked specimen; they never paired, nor did I ever see either of them carrying nesting material—later experience has taught me they were two males. Later I procured a certain, white-cheeked hen, and both my birds courted her; she chose the white-cheeked cock, and afterwards presented me with my first brood of young Grey Java Sparrows, all of whom had white cheeks in the juvenal plumage, though not so pure a white as those of their parents.

The black-headed cock above referred to remained with me five years; when I picked it up dead it never changed at all, so, apparently, these black-headed specimens are merely a colour variation of the species. It has been many years since I saw a black-headed specimen among dealers' stocks. Thus I am greatly interested in my young grey Java with the black head and neck, and await its first two moults with much interest and curiosity. Will it remain as it is, or moult out a normal specimen?

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Editorial.

Aviculture in Japan: We have received from our member T. Z. Takano a very interesting communication from which we quote the following items.

They have an avicultural society in Japan—" Tori-no-Kai," which translated is The Japan Cage Bird Club. The organ of the club is " Kaidori "—" Cage Birds," which is issued at irregular intervals. Two copies have been sent us, and as soon as we can secure a translation, extracts, at any rate, therefrom will be published in this journal.

The Japan Cage Bird Club has seventy members, most of them being either enthusiastic aviculturists or famous ornithologists. Some of them have many aviaries, breeding successfully Parrakeets, Partridge and other game birds, etc.

Recently Crown Partridges were imported, but many died owing to the cold climate.

African birds are very rare in Japan, but Australian and Indian are, at times, freely imported.

In Japan insectivorous birds are kept by a special paste, consisting of: bean and rice powder, dried fresh water fish, and rice bran. Firstly: green salad mashed, then add the moistened powder. The quantity of fish powder is regulated by the species of birds it is required for.

Mr. Takano also sent your Editor a copy of the "most ancient avicultural book in Japan," *Yobnko-dori*, "which was published in 1710 by So-sei-do—to add to his collection of avicultural books." We hope, when a translation has been secured, to summarise it in BIRD NOTES.

We shall be grateful if Mr. Takano will send us detailed accounts of Japanese successes in breeding birds in captivity; also Field Notes of their native birds, with photos if possible.

A RARE DOVE: Our member Mr. H. E. Bright is to be congratulated on the possession of a pair of *Phlogoenas margaritae*, which we believe to be new to aviculture (*see page 189 in this issue*). When visiting Mr. Bright last month it was difficult to get a close or long enough view, so that we were unable to place them, but the richness of their colouration caused us to assume them to be Fruit-Pigeons. However, we made a rough sketch, and later sent this to the Curator of the Birdroom, British Museum, and they believe them to be as above. This shows them to be a near relative of the Bleeding-heart Pigeon (*P. luzonica*) from which, however, they differ entirely in deportment and colouration, and to which we have given the trivial name of White-breasted Pigeon or Dove. The Bleeding-heart Pigeon spends, in captivity, most of its time upon the ground; the White-breasted is more aboreal and during two days we did not see it upon the ground at all. The general colouration is rich vinous-cinnamon, refulgent with a purplish sheen; upper eye-streak, lower eye region, whole of the throat and breast white, narrowly margined with black; the whole of their appearance being very handsome and gorgeously beautiful. They have successfully nested, and two fine young birds are now (September 24) on the wing. The juvenal plumage is blackish cinnamon, relieved with one or two buffish streaks, no white showing at all at present. We are not commenting further at the present, as Mr. Bright will give a detailed account of his success in a near issue.

Correspondence.

UNEXPECTED BREEDING OF GREEN AND YELLOW BUDGERIGARS IN SAME NEST.

Sir,—Four young budgerigars have flown from the nest—the first a Green; the second a Yellow the following Saturday; the third a Green last Thursday, and the fourth, another Yellow, to-day.

I was much surprised at getting Yellows, as they were supposed to be a very ordinary Green Budgerigar. I think there are some more eggs in the nest.

The funny thing about these birds breeding is that my sister's children had the above pair of birds for two years in their nursery, and they never made any attempt to go to nest. Last winter they and their parents went abroad, and the budgerigars were given to me; I kept them in the dining-room during the winter, and put them into my outdoor aviary at the end of May, when they went to nest at once, with the above result.

Manston Rectory, Dorset; REGINALD E. P. GORRINGE.
August 16, 1922.

Post Mortem Reports.

Parrakeet: Capt. J. S. Reeve, Leadenham.—Enteritis.
Jay: C. Dell, Saltwood.—Pneumonia.
Dunlin: M. R. Tomlinson, Midlothian.—Pneumonia and Nephritis.

C. H. HICKS.

* * *

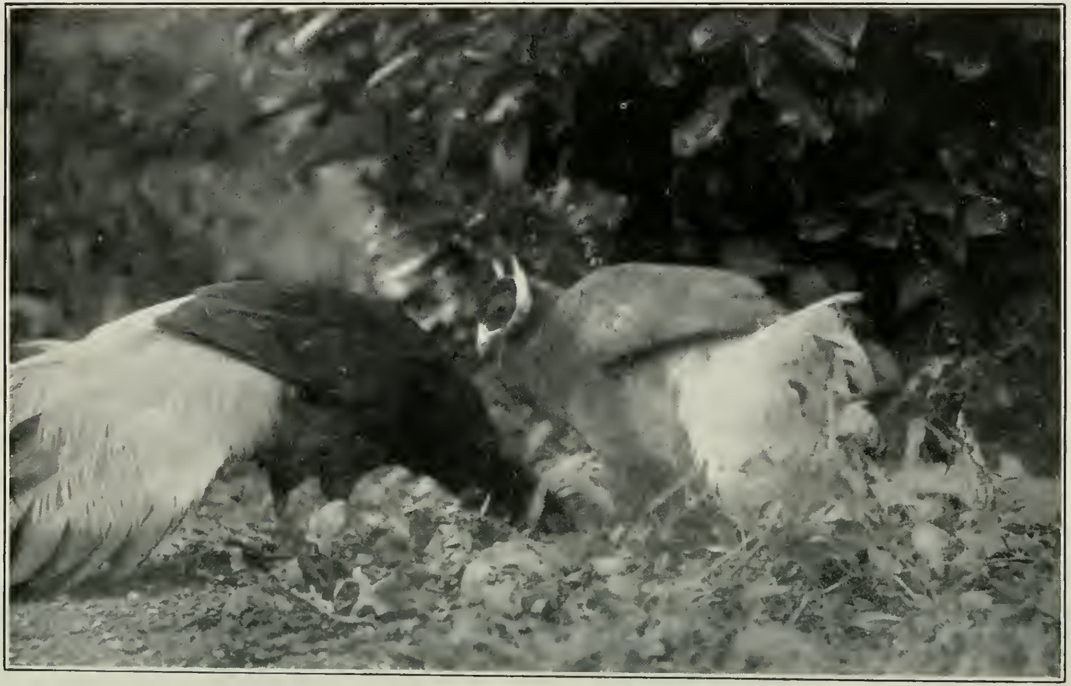

Photo by W. Shore Baily, F.Z.S.

Manchurian Crossoptilons.

A.P.P.

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BIRD NOTES:

— THE —

JOURNAL OF THE FOREIGN BIRD CLUB.

The Manchurian Eared Pheasant.

(Crossoptilon manchurium.)

By W. Shore Baily, F.Z.S.

There are five varieties of this handsome pheasant, all inhabiting the mountains of China and Thibet, where they are found in the forests up to an elevation of 10,000 feet. Naturally they are very hardy birds, and make most suitable occupants of our aviaries.

Unfortunately only the above species seems to come over, and these not very frequently.

I think it was three years ago that I got my birds from Hamlyn, and he was, if I remember rightly, offering five or six pairs at the time.

The first season the hen laid several eggs, but did not attempt to sit. The eggs were placed under a hen, but only one hatched out. This grew remarkably quickly and made a fine bird, which was duly disposed of in the autumn.

This season I had better luck; the hen Pheasant built a nest in a privet hedge and started incubating ten eggs; these I removed to a broody hen, and on June 10th six hatched out. They were pretty little things, about the size of Orpington chicks. From the start they refused nothing in the shape of food, although they showed a decided preference for live-food; they were also very fond of green-stuff, particularly lettuce. They grew apace, and started feathering very early in the same manner as do the Tragopan chicks. The most remarkable thing about these birds, however, is their extreme tameness. They are now practically full-grown, and they will, if permitted, fly upon my head and shoulders, and I am sure that if I were to let them out of their aviary they would follow me anywhere.

Unfortunately they have no discrimination, and in my absence they would be equally likely to follow any stranger who happened to pass by. When they were quite small, I put them into a paddock, with the hen confined in a coop, as is the usual custom with gamekeepers when rearing common pheasants. This did not answer with these birds at all, as they evidently followed someone who was passing their coop on the way to the house, and lost themselves in the shrubberies. I thought myself lucky to find them again. One found its way upstairs into one of the bedrooms, and the last one found was heard crying outside the kitchen door at ten o'clock at night.

In a country park, or isolated grounds, they would be a great ornament, and would do well, as they could look after themselves with dogs and cats, and would run but little risk from vermin other than foxes. However, one very rarely hears of them being kept this way, but Mons. Delacour tells me that his birds do well under these conditions in France.

According to Abbé David:—

> " The brown *Crossoptilon*, which is known by the name of Hoki in " Pekin, is resident on some of the wooded parts of the mountains of " Pechili, but for some years past it has become very rare, and it cannot " be long before it completely disappears, partly on account of the constant " persecution it is subjected to, and partly from the destruction of the " woods which form its headquarters. It is an extremely gentle and " sociable bird, living in large flocks, and subsisting chiefly on grain, " buds, leaves, roots and insects. It seems well adapted for domestication, " the more so as it is easily fed; but in captivity one must provide the " shade of a park and the neighbourhood of a clear stream of water—that " is, similar surroundings to those it is accustomed to in its wild state."

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The Cockateel at Liberty.

By the Marquis of Tavistock.

In articles which I have written on parrakeet keeping I have always given *Calopsittacus novae-hollandiae* a very bad character as a non-stayer at liberty. I am not sure, however, that I have not done the bird an injustice, and that my previous failures have not been due to my making a very elementary mistake—that of keeping the mate of the bird at liberty in a place where it could not be easily seen and visited.

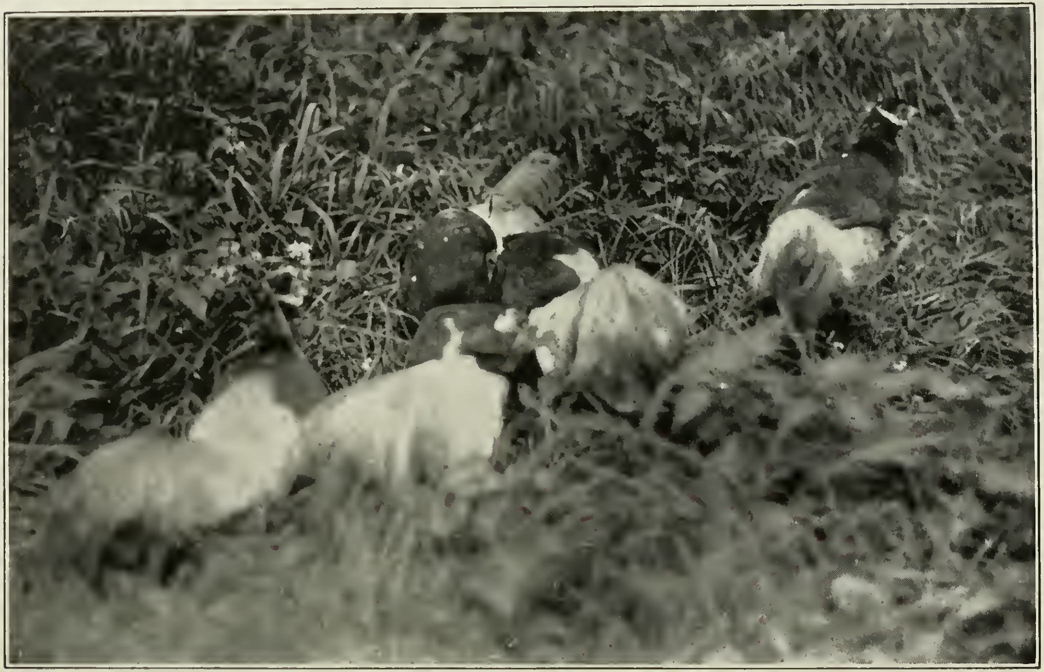

Photo by W. Shore Baily, F.Z.S.

Young Manchurian Crossoptilons.

Hearing, some time ago, of a person who had kept a male cockateel and his family at liberty for a considerable time, only losing them when he unwisely released the old hen also, I thought I would make one more experiment to see if, after all, the cockateel does not belong to that class of swift-flying parrakeets, the males of which will stay so long as their mates are in confinement.

Accordingly I placed a pair in a suitable aviary with plenty of tall trees at the back of it, and after a week or two released the cock, having taken the precaution to keep him without food since the early morning. His behaviour at first was not promising. He was soon on the wing at a great height looking at any moment as if he might dash away and travel for miles, but the hen did her duty as a call bird, and though he flew as swift and wild as any bird I have released, he kept circling back over the garden and never really went far away. Most of the afternoon and evening he drifted about the sky, often hanging in the wind like a gull, a method of flight uncommon in the parrakeet family, and as far as I know confined to this species. Next day he was still about, and in due course came and fed on the top of the aviary. He now seems to have quite settled down and treats me to frequent exhibitions of his beautiful flight, which is only surpassed in speed and grace by the *Polytelis* family. As it is, he rises higher, and keeps longer on the wing than they do. When in the air he is usually pursued by a crowd of indignant swallows, who seem to mistake him for some kind of hawk, a not unnatural mistake, for he is decidedly hawk-like in the shape of his wings. When settling down in a tree he always selects a dead branch, never one which has thick foliage.

If he continues to prosper I shall get a second pair and have another cock at liberty, cockateels being amiable birds and not inclined to annoy their neighbours.

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A Visit to an Indian Jheel.

By Hugh Whistler, F.Z.S. (Indian Police).

In the Gurdaspur district of the Punjab there is a famous duckjheel known as the Keishopura jheel, which, during the cold weather, for years past has been visited by numberless sportsmen. It has long been my ambition to visit this place and examine its capabilities from the point of view of the Naturalist rather than of the sportsman. At length the opportunity came and I motored over to Gurdaspur on the 11th September, 1922, in company with Mr. C. H. Donald, F.Z.S. (Warden of Fisheries), and spent the night there. This gave us the opportunity of visiting the jheel that evening and again in the early morning. The jheel is some three or four miles north of Gurdaspur, and extends for miles. We were, or course, in the time at our disposal, only able to examine a very small portion of it. For convenience sake I combine the observations of the two visits into one.

The approach to Keishopura is along a rough unmetalled road fringed by fine Sheesham trees through a wide cultivated plain, and at the time of our visit in the "Rains," when vegetation is lush and green throughout the country, the jheel was not noticeable until we were almost at the edge. It is growing year by year more closed with weeds and rushes and that pest the Water Hyacinth, and in the portion that we visited no open water was visible. Belts of tall bullrushes and reeds alternated with patches choked with grass and lotus.

All the country round about was full of Yellow Wagtails in various stages of plumage, belonging to several races of *Motacilla flava.* A flock of some 200 white birds, probably Spoonbills (*Platalea leucorodia*) could be seen in the distance flying over the jheel.

As the car drew up on the road at the edge of the actual marsh we could see a variety of bird life close to us, so we strolled down to the water's edge to enjoy this before joining the boatmen who were to pole us about the water.

Along the grassy margin Paddy birds (*Ardeola grayi*) were fishing, here standing motionless with head hunched into shoulders, there stalking warily towards some luckless frog with such a stealthy movement that it would hardly be possible to be slower without being stationary. Our approach disturbed the anglers, and they took to flight with that sudden flash of white wings which comes as an evergreen surprise. I know no sudden transformation of a dull bird to a conspicuous one similar to it, save in the case of the Blue Roller (*Coracias indica*).

His change from a sombre figure on a branch to a brilliant harlequin in blue will remain an ever new delight and surprise to the end of my service in the east. Here and there amongst the Paddy birds was a meditative pair of Red-wattled Lapwings (*Sarcogrammus indicus*) who refused to pay us the compliment of alarm.

As we neared the water we witnessed the usual scurry of Water Hens (*Gallinula chloropus*) to the shelter of the rushes and the tangles of huge lotus leaves. Some of them had been feeding on the grass, recalling bygone memories of many an English lawn. As the Waterhens took to flight they disturbed a couple of graceful Pheasant-tailed Jacanas (*Hydrophasianus chiringus*) who had been feeding with them.

Recent rain had caused the water to overflow into portions of some small patches of sugarcane, and they had become ideal cover and feeding ground for the various birds. I ventured into one of them in pursuit of a party of Striated Babblers (*Argya earlii*), but my progress in the thick rustling cover was too noisy, and the Babblers kept out of my clutches, always chuckling and squeaking a little ahead. However, the pursuit was of value as it revealed the presence of a party of Blue-throats (*Cyanecula suecica*) who must have just arrived on passage.

Time was short, so we abandonded this fascinating ground and made for the boats. These were merely shallow, flat-bottomed trays, square at the stern and sharply pointed in the bows, admirably adapted to the shallow weed-grown water and for pushing a way through the clumps of rushes. We settled ourselves in separate boats, sitting on a pile of grass on the bottom, and were poled along by the lightly clad owners, who stood upright in the stern and manoeuvred their flimsy craft with a long pole and exceeding skill.

The boatmen, of course, wanted to take us after the few Pochards and Teal which were said already to have arrived, but we explained that we were after humbler fry and wanted first to punt about the reedbeds to see what they held.

We moved first through a comparatively open area where there was only thick water grass about a foot above the surface. A patch of this was filled with fish traps. These were in the form of small funnel traps of reed stems roughly covered over with weeds, and set in gaps, left a series of parallel fences about five feet apart, of neat little reed screens. A small inferior fish is all that is caught, and this is used by the fishermen for food; it is too poor for sale. A small boy was setting numberless nooses of horsehair in some reeds near by, for any small water bird that might be caught; all species go into the pot alike.

These patches of watergrass proved to be full of the Eastern Baillon's Crake (*Porzana pusilla*) which the men said had only just arrived. As the boats moved along the little Crakes rose from the grass in all directions flying weakly for some ten to twenty yards and then flopping back into the cover. In one or two places where flooded patches of rice were near enough to afford good feeding they were very numerous.

At length we reached the belts of Bullrush and found that they had their own particular fauna. The most noticeable species was the Striated Weaver (*Ploceus mangar*). These birds were very abundant and breeding in small loose colonies. As we poled through the rushes we came on the nests in all directions. These are built in rather a curious manner. The tips of some twenty reeds growing a small distance apart are bent over inwards so as to form the radii of an irregular circle, and at the centre, where they meet, a typical Weaver's nest of fine shreds of reed is constructed on the ends of the reeds and holding them all together. The nest is not slung from the reeds, but they pass in and out through the walls of the structure. The nest is thus in the centre of an elastic framework which gives easily to the wind and holds the nest well clear of the water. In shape the actual structure is much the same as that of the common *Ploceus baya* of dry land, but the entrance funnels are much shorter—only two or three inches in length. The breeding season was apparently just beginning, as I could find only one or two nests with eggs or chicks. The majority were half-built, the strips of material still green; many half-built nests were, however, dry and faded, and it appears as if many, for some cause, are abandoned by their builders—perhaps through dissatisfaction with the spring of the supporting reeds. The Weavers were flying in twos and threes all over the place, and the attractive little warble of the cocks issued from every patch of cover. Yet I found it difficult to secure specimens as they settled low in the reeds, and were therefore invisible more than a few yards away. To shoot them flying would be certainly to lose them amongst the dense reeds. The eggs are pure white.

As the boats moved slowly on we disturbed other denizens of the reeds; various small warblers flitted here and there or clicked unseen in the shadows. Ever and anon the grasshopper-like song of a Fantail Warbler (*Cisticola cursitoria*) sounded overhead as one passed over with his mounting flight. In addition to the birds that have already been mentioned we flushed many little Yellow Bitterns (*Ardetta sinensis*) and Purple Gallinules (*Porphyrio melanocephala*). The tiny Bitterns looked very neat with their straight, strong flight in contrast to the Gallinules who rose trailing their long legs to fly but a short distance and then drop heavily into the reeds. A couple of Purple Herons (*Ardea purpurea*) were seen flying in the distance.

Here and there stray Kites (*Milvus govinda*) and Marsh Harriers (*Circus aeruginosus*) were beating over the jheel, and I saw one of the latter badly mobbed by a Pheasant-tailed Jacana whose chicks were probably in the neighbourhood. Once there was a sharp scurry, and a young Pallid Harrier (*Circus pallidus*) in the ringtail plumage drove some bird down in the reeds in front of me, but rose with empty talons.

The Coots (*Fulica atra*) had apparently not arrived, as I only saw one. A hurried glimpse of a passing bird added a Water Rail (*Rallus aquaticus*) to my list.

Here and there in the reeds could be heard the dull booming call of the Crow Pheasant or Concal (*Centropus sinensis*), an ungainly black and chestnut Cuckoo which the novice in India always assumes must be a game bird.

Duck were conspicuous by their absence.

Although they are not water birds one cannot omit to mention three species who are almost always found in the neighbourhood of water in India. The Blue-tailed Bee-eaters (*Merops philippinus*) were hawking here, there and everywhere, over reed bed and lotus, along the road and over the fields. These birds collect in hundreds at night to roost in the bullrushes, and then their calls sound like the chirping of innumerable crickets.

The Wire-tailed Swallows (*Hirundo smithii*) were common about the edge of the jheel, and with them were a few Common Swallows (*Hirundo rustica*).

The best of things must end, and it was time to return to the car. As we landed the boats a Kingfisher (*Alcedo hispida*) was disturbed from his perch at the water's edge. We lingered for a moment to watch his larger relative the Pied Kingfisher (*Ceryle rudis*) hover and dive; twice he plunged and emerged with empty beak. The third time brought luck, and as he flew off in triumph with a fish we turned towards the car, also with our spoil.

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Happenings in Our Aviaries.

By Dr. E. Sprawson, M.C., F.Z.S., etc.

(Continued from page 165).

Following on my notes to you in August some of our hopes materialised and some did not.

Rufous-tailed Grassfinches (*Bathilda ruficauda*). These did very well, having brought up their first family of four; they exceeded expectations on September 13th and 14th by bringing out of their box-nest five more babies which, in spite of the weather, they brought up to independence. We caught them up for the winter two or three days ago, but we have since lost one. The parents are now (October 11th) sitting *again*, having commenced to on the 5th, but, of course, it is too late now, and we shall take them in soon. However, they have done quite well this year. We have never seen the adults go through the courtship performance the Marquis of Tavistock writes about, but several times during August we saw one or two of the young from the first nest—young males evidently—and still, of course, in their immature plumage, fly the length of the aviary, bearing a grass stalk and making the noisy, flapping and slow flight he describes—flying towards other young of the same species.

Firefinches (*Lagonosticta minima*). This species also brought out two more young—the young cock from the first nest, unlike his father, is now showing the white dots on his sides as he is coming into adult plumage. These parents also are now sitting again—of which more anon.

GOULDIAN FINCHES (*Poephila gouldiae*). Of these, one nest did not materialise beyond the state when I last wrote—the other hatched out five chicks and brought four of them up to independence; the four were of very different ages, or rather degrees of development, when they left the nest. One of them, though not the smallest, seemed a very backward youngster—we lost it a day or so ago, so we sent it and the young Rufous-tail to the Natural History Museum, South Kensington, where it seems they had no skins of immature young of either of these species.

Both pairs then went to nest again, but this time there was a good deal of quarrelling while choosing nests, the result being four out of five infertile eggs in one nest, and three out of five in the other. The one pair left their single baby to unkind fate from the start. The other pair fed well for over a week and then, or possibly on account of the cold weather, they too stopped feeding, so that on Saturday last we found one young one dead, and the other with empty crop and rather cold. Seeing the parents would have nought to do with it we put it by way of experiment into the firefinch's nest (as I mentioned above, they are sitting) and, to our surprise, they took to it and seem fearfully proud of it. I don't for a moment suppose we shall rear it, but it is still going on well after four days' care by the Firefinches, who promptly drove away the parent Gouldians when the young one began to call for food. It is rather amusing—the Gouldians always feed their young mainly on canary seed; the Firefinches give none, but feed on Indian millet and insects—still the young one seems to be doing very well on it; also young Gouldians simply yell for their food, whereas young Firefinches are almost silent. The Firefinches seem to think this yelling on the young Gouldian's part unseemly and somewhat of a reflection on their care of it, so at the first sign of a yell they cram him with food to keep quiet!

Beyond the above we have RED AVADAVATS (*Sporaeginthus amandava*) sitting, but too late one fears. The nest is a very neat globular grass structure about six inches off the ground.

Though so near London, we are infested with Owls here; would that some member would inform us how to keep them away—they have only actually injured one of our birds so far, but, too often, in the morning one finds a bald head, the result of being frightened on to the wire by owls in the night, and a bird without feathers on its crown looks hideous till it grows them again.

The cock Rufous-tail—the parent of the above mentioned young is one of the seventeen bred in 1916 by Lady Samuelson, from whom we obtained it in that year.

Later (October 17): The young Gouldian in the Firefinches' nest died two days ago. South Kensington reports "a yellow and diseased liver"—probably a fatty one—its change of diet evidently did not agree with it.

The Avadavat's eggs turned out to be infertile; the Rufous-tails had six fertile eggs in their third nest, which, as too late for this year, will also repose in South Kensington.

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Notes on Jungle and other Wild Life.

By Dr. Casey A. Wood, M.B.O.U.

Continued from page 196.

Second in splendour only to the Falls themselves are the lovely mist and other meteorologic effects produced by the roaring mass of falling waters as they are dashed into foam on the rocks below; indeed it is only by watching the ever-changing river valley from sunrise to sunset that one can appreciate the dissolving views to be seen in and about the Kaieteur Valley. I was so impressed by their weird beauty that I proposed (to myself) to name this million-year-old canyon the Gorge of the Enchanted Mists. I am confident you will agree, when you visit it, that the title is not undeserved.

In the early morning (we generally rose before daybreak) the spray and fog filled most of the depths and overflowed the margins of the gorge; soon, under the influence of the sun's rays the silvery curtain was drawn and several miles of glimmering but placid stream was seen *above* the Fall, shortly followed by a sight of the reddish water plunging, in several divisions, over the rocky ledge. Nothing more of the Fall itself was visible, but far below one was able to identify, if dimly, two or three cataracts, swirling, boiling and tumbling over the rocky bottom and separated from one another by half-miles of comparatively quiet water.

About 500 feet from the floor of the ravine several small waterfalls become visible, one near the Great Fall bearing that universal but often appropriate name, "The Bridal Veil." And now, while the boiling, roaring maelstrom beneath is swathed in a giant roll of cotton—fog, the upper half is revealed in all its feathery glory, giving a wholly new impression of the *repoussée* wall of water. This scene persists for perhaps twenty minutes, when the deeper mists roll aside and the whole breadth and height of Kaieteur, pillared on either side by great columns of paper-white fog, bursts upon the astonished visitor. Soon the upper fourth of each lateral column joins its fellow, making a Roman arch that frames the tremendous wall of falling water.

Again the scene changes, and the arch becomes a round, an oval, or a square frame, through which the greater part of the falling water-mass is on exhibition, as in a giant picture gallery.

Another and not uncommon scene results from the uniform thinning of the cloud-veil that just previously obscured the entire fall. Then the appearance reminds one strongly of those stage effects obtained on looking from a darkened auditorium through cheesecloth clouds; one sees dimly and in weird fashion the objects beyond. Upon an infinitely grander scale is a wonderful and rapidly dissolving apparition of a huge yellow-brown mass of water behind the white but translucent veil of mist.

Finally, a "close-up" view of the Falls is to be obtained by walking along the margin of the chasm quite to the lateral table rock that almost overhangs the falling water. If your nervous system is in good order you may lie prone upon your stomach, with head and neck projecting well into space, and look down, down, 900 feet along, indeed almost parallel with, the immense sheet of water that rolls past to where it crashes upon the jagged rocks below and rebounds from them fifty feet in the air. It is an awful and impressive sight. Don't try it unless you are sure of foot and clear of brain! At the same time, no view of the Great Fall can give one as true an idea of the mighty plunge taken by that 400-foot-wide mass of roaring waters.

One of our party, perhaps the most athletic pedestrian and hill-clisber of the outfit, could not be persuaded to approach within 20 feet of the table rock. He said it "gave him the creeps" even to watch me as I lay staring down into the depths of the abyss. Such a state of mind argues no lack of bravery, any more than the ability to look the fall in the face shows the opposite. In both instances it is simply a state of mind—probably congenital—comparable to the impulse some folks feel to jump off a high tower or from a belfry, while others love to dangle their feet from the loftiest pinnacle of a cathedral.

From this near point of view the rainbows of the Fall are generally seen to best advantage. They are often double and sometimes triple, while the arcs are wonderfully complete. Moreover, monochrome bows—usually rosy-red—were seen during our visit—due, of course, to cloud reflections.

The whole of the Potaro canyon also unfolds itself from this point and directly in front for a distance of ten miles. It reveals a deep and gradually widening valley, green-clothed, with a thin median ribbon of silver water peeping out of the vegetation here and there; the stream sometimes at rest, sometimes stirred into foam as it rushes into rapids and pours over rocks not yet worn into a smooth river bed.

As the shadows of the afternoon lengthen in the canyon, and the evening sounds of bird, frog and bat (there were plenty of the last-named under our rest house rafters) began, the change of scenery on the giant stage of the Kaieteur became marked and rapid—but these are incapable of description (at least by me) because they must be seen to be realized—just like the colour-wonder of the Great Canyon of the Colorado.

All the foregoing has to do with the Potaro at half-flood. Not only is a new Kaieteur born at low water but there is a third renaissance, they tell me, when the river overflows, as in June after prolonged rains; so that fully to appreciate the charms of this region one should visit it at various seasons, when all three conditions prevail, and remain a week or so on each occasion.

To be concluded.

Records of Birds which have Bred in Captivity.

By Dr. E. Hopkinson, D.S.O., M.A., M.B., F.Z.S., etc.

(Continued from page 202).

TANAGRIDAE.

172. BISHOP TANAGER, *Tanagra episcopus.*

173. WESTERN PALM TANAGER, *T. palmarum melanoptera.*

174. SCARLET TANAGER, *Rhamphocoelus brasiliensis.*
YELLOW-RUMPED TANAGER, *R. icteronotus.* First breeder, Brook, 1917. See B.N. 1917, 197.

175. BLACK TANAGER, *Tachyphonus rufus.* (Record omitted in the Bird Notes List, 1918, p. 268, and also the next).

176 MAGPIE TANAGER, *Cissopsis leveriana.*
In Page's list, but the only record I know is " Zoo, 1912, where the young died after leaving the nest, so unless there is another record, this cannot yet appear in the list of successes. (See P.S. (C) p. above)

ICTERIDAE.

177. RED-WINGED BLACKBIRD, *Agelaeus phoeniceus.*
BROWN-HEADED TROUPIAL, *A. frontalis.* Shore Baily, 1920. See B.N. 1920, 160.

178. PURPLE GRACKLE, *Quiscalds quiscala.* Abroad.

STURNIDAE.

180. ANDAMAN STARLING, *Spodiopsar andamanensis.*
And Hybrids.
ANDAMAN STARLING × MALABAR MYNA.

181. MALABAR MYNA, *S. malabaricus.*
MALABAR MYNA × ANDAMAN STARLING.

182. PAGODA MYNA.

183. COMMON MYNA, *Acridotheres tristis.*

184. INDIAN MYNA, *A. gingianls.*

CORVIDAE.

192. EASTERN BLUE MAGPIE. *Cyanopolins cyaneus.*

193. SPANISH BLUE MAGPIE, *C. cooki.*

194. OCCIPITAL BLUE PIE, *Urocissa occipitalis.*

PTILONOTORHYNCHIDAE.

196. REGENT BIRD.

ALAUDIDAE.

197. BLACK LARK.

198. SKYLARK.

199. CRESTED LARK.
WHITE-CHEEKED FINCH-LARK, *Eremopteryx smithi.*

First breeder, Shore Baily, 1917. See B.N. 1917, 133.
Also at Zoo, 1917. See B.N. 1917, 175.
(*P. leucotis* in the accounts in B.N., but almost certainly the S. African Smthi, NOT the East African leucotis).

MOTACILLIDAE.

200. PIED WAGTAIL.

203. YELLOW WAGTAIL.

205. ROCK PIPIT.

206. GREAT TIT.

207 PLESKE'S TIT, *Cyanistes pleskei.* Hybrid record only.
PLESKE'S TIT × AZURE TIT.

ZOSTEROPIDAE.

209 INDIAN WHITE-EYE, *Z. palpebrosa.*

210. NATAL WHITE-EYES, *Z. virens.*

LANIIDAE.

211. RED-BACKED SHRIKE.

ARTAMIDAE.

212. WHITE-EYEBROWED WOOD-SWALLOW, *Artamus superciliaris.*

SYLVIIDAE.

214. TAILOR-BIRD, *Sutoria sutoria.* Abroad.

216. BLACKCAP.

217. BLUE WREN, *Malurus superbus.*

MIMIDAE.

218. MOCKING BIRD.

219. CAT BIRD.

TURDIDAE.

221. GREY-WINGED OUZEL.
And Hybrids.
GREY-WINGED OUZEL × BLACKBIRD.
× ARGENTINE BROWN OUZEL.

223. TICKELL'S OUZEL, *Merula unicolor.*

224. ARGENTINE BROWN OUZEL, *Semimerula fuscatra.*

225. WHITE-THROATED GROUND-THRUSH, *Geocichla cyanonota.*

226. ORANGE-HEADED GROUND-THRUSH, *G. citrina.*

229. AMERICAN ROBIN, *Turdus migratorius.*
And Hybrids.
AMERICAN ROBIN × WHITE-BELLIED OUZEL, *Merula albiventris.*

230. SONG THRUSH. I know no record but that of Page, but surely this and the Blackbird HAVE been bred.

Hybrids.
SONG THRUSH × BLACKBIRD.
231. ROCK THRUSH.
232. HEDGE SPARROW.
233. JERDON'S ACCENTOR.
234. BLACK REDSTART.
235. NIGHTINGALE. Yarrell.
236. SPROSSER.
237. DAYAL BIRD.
238. SHAMA.
239. STONECHAT.
240. PIED BUSH-CHAT, *Saxicola caprata.* Abroad.
241. BLUE ROBIN.

TIMELIIDAE.

243. PEKIN ROBIN.
244. SILVER-EARED MESIA.
245. BEARDED TIT.

PYCNONOTIDAE.

246. RED-VENTED BULBUL. Page.
And Hybrids.
RED-VENTED × RED-WHISKERED BULBUL.
248. RED-WHISKERED BULBUL, *Otocompsa emeria.*
249. WHITE-EARED BULBUL, *O. leucotis.* Zoo. 1922.

To be continued.

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Visits to Members' Aviaries.

By Wesley T. Page, F.Z.S., M.B.O.U.

Continued from page 192.

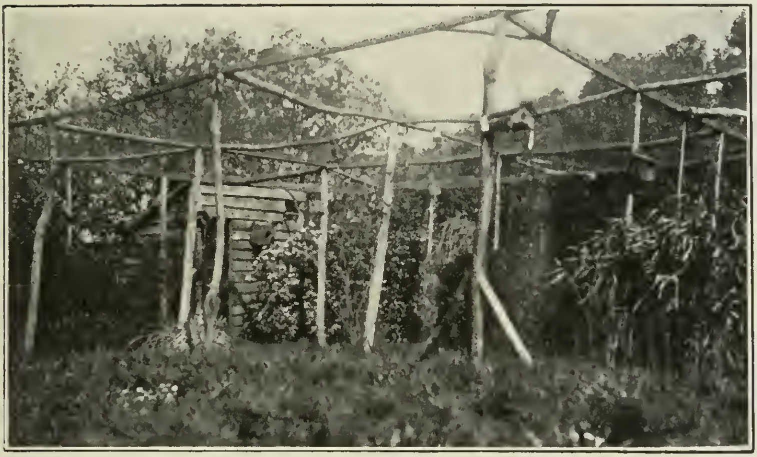
Corrigenda: On page 188 line 5, for "roof's standard" read *roof standards.* Page 191 transpose lines 16 and 17.

Capt. G. E. Rattigan's Aviaries and Birds: On arrival I was most cordially welcomed by my host and hostess, and that evening I did the aviaries and birdroom. Here I had more leisure for observation, for I spent eleven interesting and pleasant days at Fluder House, Kingskerswell, which is situated about midway between Torquay and Newton Abbot, the weather on the whole being fine, but dull and unsettled.

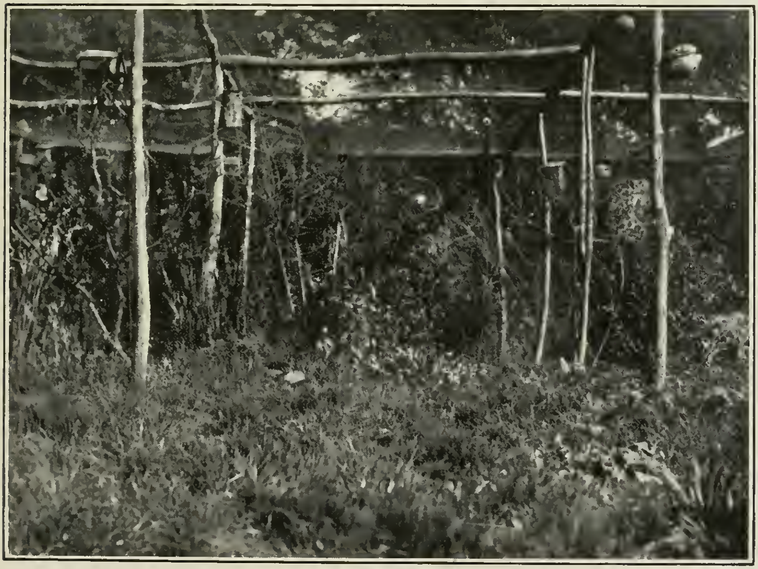
Capt. Rattigan's aviaries have already been described in this Journal, and except for the addition of a Parrakeet aviary, of which more anon, they are unaltered, save for the development of plants and shrubs—the whole effect is very pleasing, the birds happy and contented as shown by the breeding results, which are good considering the abnormally cold, wet summer—there have been some later results, of which we shall get details later from Capt. Rattigan's pen. The two small photos illustrating these notes give a fair idea of the flights of the two large aviaries, and show clearly their natural character. These are only summer aviaries, so the shelter sheds are of but moderate dimensions, their occupants migrating to the birdroom for the autumn and winter months. Results have certainly proved them to be very practical aviaries for the conditions under which the birds are kept. If the birds occupied the aviaries all the year round the shelter sheds would require to be 15ft. x 12ft. instead of the 8ft. x 6ft. they are.

The Large Aviary: This is divided into two sections, one for finches, waxbills, etc., and the other for larger birds, and quarrelsome individuals of the smaller species. Each section has a flight 27ft. x 24ft., and a shelter shed 8ft. x 6ft. The flights are planted with sufficient herbage, bushes and shrubs to provide ample cover for the ground and arboreal species which occupy them, yet are sufficiently open to allow of the birds being easily observed. In front of these two aviaries I spent many happy and interesting hours watching the doings of their inmates.

Many birds were nesting, incubating or feeding young, and under these conditions the competitive instinct of the birds came out very clearly, as also did a sort of "live and let live" spirit which seemed to govern the action of most of the birds, but did not obliterate the former trait. If anything this aviary, though a roomy one, contained too many pairs for a breeding aviary, as well as fairly numerous unmated individuals—these latter I noticed mostly kept together species by species, though making occasional "intrusive calls" to the domiciles of the mated pairs, thus causing a certain amount of "langwidge"



Large Bird's Section of Capt. G. E. Rattigan's Large Aviary.



Photos by Capt. G. E. Rattigan. F.Z.S.

Looking through the flights of Capt. G. E. Rattigan's Large Aviary.

and light sparring; but, generadly speaking, amiability and general good nature prevailed.

The Small Birds' Section contained quite a representative series of *Ploceine* and *Fringilline* species, and I actually saw the following:

1 pair Violet-ear Waxbills (*Granatina granatina*).
2 pairs Quail Finches (*Ortygospiza polyzona*).
3 pairs Zebra Finches (*Taeniopygia castanotis*).
1 pair White Java Sparrows (*Munia oryzivora*, var. *abla*).
2 pairs Cuban Finches (*Phonipara canora*).
1 pair Red-headed Finches (*Amadina erythrocephala*).
1 pair Saffron Finches (*Sycalis flaveola*).
1 pair Diamond Finches (*Steganopleura guttata*).
1 pair Lavender Finches (*Lagonosticta caerulescens*).
1 pair Grey Singing Finches (*Serinus leucopygia*).
1 ♂ Green Singing Finch (*S. icterus*).
2 ♂ Lined Finches (*Sporophila lineola*).
2 pairs Masked Grassfinches (*Poephila personata*).
1 pair Long-tailed Grassfinches (*P. acuticauda*).
1 pair R. H. Gouldian Grassfinches (*P. gouldiae*).
2 pairs Rufous-backed Mannikins (*Spermestes nigriceps*)
1 pair Bronze-winged Mannikins (*S. cucullata*).
1 pair Black-headed Mannikins (*Munia atricapilla*).
1 pair Chestnut-breasted Finches (*M. castaneithorax*)
1 pair Linnets (*Linota cannabina*).
1 pair Bullfinches (*Pyrrhula europaea*).
2 ♂ 1 ♀ Avadavats (*Sporaeginthus amandava*).
1 pair Orange-cheek Waxbills (*S. melpodus*).
1 pair Cordon Bleus (*Estrilda phoenicotis*).
1 pair Diamond Doves (*Geopelia cuneata*).
1 ♂ Nightingale (*Daulius luscinia*).
1 ♂ Grenadier Weaver (*Pyromelana oryx*).
1 ♂ Orange Weaver (*P. franciscana*).
1 ♂ 2 ♀ Red-billed Weaver (*Quelea quelea*).
1 ♂ Queen Whydah (*Vidua regia*).

There were also young Cordon Bleus, Cuban and Zebra Finches on the wing, mostly still being fed by their parents. Young birds, as soon as able to fend for themselves, are caught up and removed to the birdroom.

Species which have successfully reared young:

Cuban Finches
Zebra Finches
Quail Finches
Long-tailed Grassfinches
Cordon Bleus
Rufous-backed Mannikins
Linnets
White Java Sparrows

Pleasing Features: Certainly not the least pleasing were the Cordon Bleus and Lavender Finches, yet not a whit behind them were the Violet-eared Waxbills; the soft, delicate beauty of the two former, and the more decided beautiful colouration of the latter held one almost speechless, as the eye followed them flashing about in a setting of living-green. Their vivacity and almost ceaseless activity held one entranced—it is doubtful if the Lavenders are a true pair, for both birds had mostly a piece of grass or hay in their beak as they flashed about from one point of vantage to another. " Handsome is that handsome does," so of this beautiful trio the palm must go to the Cordon Bleus, for they have bred freely, one pair having fully reared three broods of three, two and two respectively.

The so-called sombre species, too, made a brave display if not of such elegant form as the waxbills. Who can truly call the Chestnut-breasted, Bronze-winged and Rufous-backed Mannikins plain or sombre? With this trio it is the Rufous-backs that have fulfilled the purpose of life, viz: to reproduce their kind—quite a few have they fully reared, the older of which were to be seen in the birdroom in parti-coloured garments, in the intermediate stage of passing from the juvenal to adult plumage.

Another quietly coloured species that has done its duty in this respect is that quaint little ground bird, the Quail Finch. Amid the grass and herbage they found a quiet retreat, built their home and reared several families—more than one at any rate. Only close observation brings this unassuming, quaint, but exceedingly pretty little finch into the picture.

Despite their lethargic reputation, the mannikins in the early part of the day and the whole of the evening (during noontide heat all species are more or less listless and dull) they were certainly neither stupid nor dull, quite the reverse, being full of vim, activity, and energy, incessantly on the go the whole time, and a pleasing picture they made too. Of course, their movements are neither so elegant nor so graceful as those of some of the other groups; pleasing and interesting they certainly are was the comment I made as I watched these particular individuals in a state of restrained liberty amid a natural setting.

Grassfinches: These and Mannikins are nearly akin, in fact, Dr. A. G. Butler has well called the former " brightly coloured Mannikins "—during the portions of the day, when all diurnal creatures are active, grassfinches do their bit to make the world go round—these also were active during the morning and evening hours, adolescence only being evident during the early afternoon—I must make two exceptions, viz: the Masked Grassfinch and Gouldian Finch; both these are certainly lethargic species, the latter especially so, for in spite of bizarre, piebald colouration, it was, to the writer, the one dull and uninteresting species in the aviary; they had not gone to nest (a recent letter from Capt. Rattigan informs me that they have, since my visit, nested and brought forth one young bird), and the only things they seemed to wake up for were to feed, bathe, and preen their plumage, and except at these brief periods their bright colouration was not sufficient to lift them from the dull and uninteresting. Of course, to the student, all bird-life is interesting, whatever the colour of their garments or their characteristics may be, but I have written as they appeared to me, as I sat meditatively observing them, with an eye to Copy for BIRD NOTES, during my ten days' visit.

As I have already said young birds are removed when able to look after themselves, so that only one or two instances of family parties were in evidence, viz: Cuban and Zebra Finches, Cordon Blues and Rufous-backed Mannikins, and fascinating pictures they made, too, foraging in their family groups amid the herbage, then as the parent birds picked something up, came the plaintive, querulous call of the young to be fed—how the Zebra Finch family group forced themselves into notice, as they backed away from their parents and yelled " blue murder " for grub. How keen at live-food time was the competition to obtain the largest supply among the various species, both parents filling their beaks and making alternate visits to the nests while the supply lasted. I must pause, as this description is getting too lengthy though one would fain linger.

Large Birds' Section: This was occupied mostly by Cardinals and quarrelsome individuals ejected from the Small Birds' Section. It contained the following species:

1 pair Green Cardinals (*Gubernatrix cristata*).
1 pair Grey Cardinals (*Paroaria cucullata*).
1 pair Virginian Cardinals (*Cardinalis cardinalis*).
1 pair Lilac-crowned Fruit-Pigeons (*Ptilopus coronulatus*)

1 pair Necklace Doves (*Turtur tigrinus*).
1 pair Californian Quail (*Lophotyx californica*).
1 ♂ Pintail Whydah (*Vidua principalis*).

This section, like the previous one, also has plenty of natural cover, yet the nests I saw therein were either on top of or inside wooden nest boxes, but there were two nests in bushes, in which young had been hatched but not reared, presumably owing to heavy rain storms at that period, so that, apparently the Green Cardinals had reasoned the matter out and decided that in this deuce of a climate it was folly having too airy a mansion, and their wisdom came in for my warm commendation.

Here, too, the competitive instinct was very apparent when insect supplies were given out—there, after throwing down a few insects, Capt. Rattigan stood, shooing off the other cardinals while Mr. and Mrs. Green got enough for their babies, but all the " shooing " in the world did not prevent the Greys and Virginians getting a look-in—directly one of the Greens was off guard or the aviculturist one ceased " shooing." Of the two avicultural onlookers one cussed the Greys and Virginians as unworthy pirates, the other silently applauded their successful pertinacity. I was glad later to learn that Mr. and Mrs. Green successfully reared their babies. It is astonishing how soon wild species adapt themselves to altered conditions.

Equally interesting, too, to note that the offspring of uncannily tame parents possess all the wild instincts of those born in their native wilds, and, as soon as they have found the full use of their wings, after making their exit from the nest, are as wild and unapproachable for a time as those freeborn.

These three species of Cardinals, etc., made quite a nice picture in their semi-natural quarters, and, though not always amiable species when kept together, they maintained a sort of amiable tolerance towards each other, as a rule.

The Grey Cardinals also successfully nested and reared young, but the Virginians forsook their offspring when a few days old, but Capt. Rattigan succeeded in bringing up two by hand-feeding them with soft-food and insects.

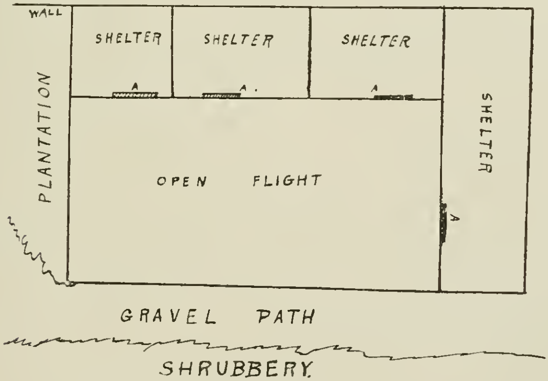
The Budgerigars' Aviary: This aviary, an enclosed one, is mainly given up to Budgerigars, of which it contained quite a few—old and young—it also housed a few other species, for which there was no accommodation elsewhere, viz:

1 ♀ Green Cardinal (*G. cristata*).
1 pair Barbary Turtle Doves (*T. risorius*).
1 ♀ Red Mountain Dove (*Geotrygon montana*).
1 ♀ Orange Bishop (*Pyromelana franciscana*).

These do not call for further comment, save that all were in tip-top condition in every way.

The Parrakeet Aviary: This is a new structure, and an excellent aviary, too. The back and one end consist of concrete built dog kennels of which there are three, each one forming a roomy shelter, and all have outlets to the same roomy flight, which also is well sheltered by a thick shrubbery bordering the lawn. It contained the following:

1 pair Pennant's Parrakeets (*Platycercus elegans*).
1 pair Peach-faced Lovebirds (*Agapornis roseicapilla*).
1 pair Blossom-headed Parrakeets (*Palaeornis cyanocephala*).
1 pair Cockateels (*Calopsittacus novae-hollandiae*).
1 ♀ Green Cardinal (*G. cristata*).
1 ♂ Pope Cardinal (*Paroaria larvata*).



Ground Plan Capt. Rattigan's Parrakeet Aviary.
A.—Open doorways to Shelter.

These converted dog kennels have made a really capital parrakeet aviary, and I opine young will be reared therein. The floors of flight and shelters are concrete, so that it is fairly secure against rats and other vermin.

Lawn Birdroom: This is a small wooden portable building, for the purpose of breeding and flighting canaries. The only alien it contained was an exquisite Crimson Finch.

Barn Birdroom: This is a large room, some 40ft. x 20ft., lofty, and well-lighted. It is really a combined store and birdroom. Along the entrance end and part of the front are a number of iron bins, and in these the various seeds and meals are stored. The centre of the room is occupied by two roomy flights. Into this room come the bulk of the birds during the autumn and winter months, also the young birds when able to fend for themselves. However, it contains a goodly number of birds all the year round, and some species are bred in the flights and cages each season.

In the flight cages round the sides of the room I noted:

Cornish Chough
Yellow-wing Sugarbird
Young Zebra Finches
Yorkshire Canaries
Hand-reared Blackbirds
Young Cuban Finches
Young Cordon Bleus
Young Rufous-backed Mannikins
Young Blackcap
Hand-reared Thrushes
Hand-reared Virginian Cardinal
Greenfinch
Young Grey Cardinals
Pekin Robin
Canaries
Red-headed Finch
Nightingale

In *Centre Flight No. 1*: This contained a good number of young birds. I noted the following:

Canaries
Young Quail Finches
1 pair White Java Sparrows
1 pair Crimson Finches
Siskin-Canary Mules
Red-headed Finch-Cutthroat Hybrids
Young Zebra Finches
Silverbill

Also cock Blue Budgerigar mated with a blue-bred Green, with a brood of young in the husk, among which was one Blue.

Centre Flight No. 2: This contained but few birds, viz:

1 pair Green Cardinals, feeding young.
2 ♂ Blue-bred Green Budgerigars
1 ♂ Greenfinch
1 ♂ Chaffinch.

This brings my description of this practical accommodation to a close—I have purposely refrained from going into too close detail as to the doings of the birds, as I hope Capt. Rattigan will spin the yarn himself.

I must mention, in conclusion, that in the spring Capt. Rattigan released a few weavers, which he had found troublesome in the aviary, and they stayed fairly well about the paddock and garden. A pair of Rufous-necked Weavers (*Hyphantornis* *cucullatus)* nested in the shrubbery along one side of the lawn and brought up three young birds successfully. Some of these weavers are still about, and I saw several, including an Orange Weaver, in full colour, but it was only a glimpse I caught of this brilliant species—most of the "at liberty" birds were in eclipse plumage and not easy to detect amid the very numerous avifauna of the garden.

The last morning of my visit came, and amid almost tropical rain I passed to the station and entrained for Westbury, Wilts., but this account I must leave to another issue.

To be continued.

Stray Aviary Notes.

By Herbert Carr-Walker.

This has been almost a futile breeding season, and successes few and far between, yet I have achieved a success which I have tried to gain for many years past, but hitherto failure has always dogged my efforts. I have always been bent upon breeding British Bullfinches, and this season my desire has been achieved.

I can find no one in this part of the world (Yorks.) who has successfully bred them, though a friend of mine has tried for twenty years to do so. I believe the cause of so many failures is the difficulty of getting the right food for them in the early stages. The first intimation I got that they were nesting was noticing the cock bird very busy collecting small flies from the wire-netting, and I at once suspected he was feeding young, and on this assumption arranged for a daily supply of all kinds of wild grass seeds. A little later two exceedingly strong young birds left the nest. They have now moulted and taken on their black-caps, but both are females. Needless to say I am much gratified.

I see in September Bird Notes that Dr. Hopkinson has included the Spice Finch × Silverbill hybrids, which were bred here, in his list. It may be of interest to give a few notes of this 1920 episode. I still have two of the hybrids, and very pretty birds they are, too—could they be put to any useful purpose [such hybrids are rarely fertile when paired *inter se*, but mated to either of the parent species fertile eggs are usually produced.—Ed.]? Their nest was of the usual globular type with entrance hole at the front, and, so far as I observed the male parent took entire charge of the young as to feeding and protecting them—the Silverbill (African or Indian form?—Ed.), a newly imported bird, died soon after the young made their exit from the nest. The cock Spice Finch died recently while in the moult. An interesting feature has been that the Spice Finch and his family have been inseparable, right up to the time of his death—where one went the others always followed.

The outstanding feature of this season in my aviary has been the breeding of the Cutthroats (*Amadina fasciata*)—did the inclement weather suit them? My two pairs fully reared a score of young birds. Some seasons I have not reared a single youngster of this species!

The article on the merits of the Shama as a song bird in this Journal a few issues back, filled me with a desire to possess one, and during the summer I acquired a newly imported specimen. He is now through the moult and in perfect condition. What satisfactory birds they are! My bird has always been finger-tame with me, and his song a perfect delight; the variety of it, with a wonderful range of notes, make it the most fascinating bird I have ever kept. He will sing under any and all conditions, in day or artificial light, and is at his best with people about him. Shyness or fear he is a stranger to.

In him I have found another favourite bird.

[Re breeding Bullfinches: For many years past I have not kept this species, but in the comparatively early days of my avicultural experience I bred them quite freely, but it was only after a number of failures that success was attained. So far as I know very few Bullfinches are reared in captivity. Quite a few hybrids have been reared—such have appeared on the show bench at various times, fairly regularly too—by crossing with some other species of indigenous finch, linnet, redpoll, etc. I attributed my success with the Bullfinch to unlimited greenfood—grasses and other garden weeds, sprays from rose and fruit-trees. I did not supply any live insects, and their quarters merely a roomy packing-case-cage.—W.T.P.]

Successful Breeding of the Isabelline Turtle Dove.
(Turtur isabellinus).

By H. Bright, F.Z.S.

The Isabelline Turtle Dove bears a strong resemblance to the Wild Turtle Dove (*T. turtur*), but is of a warmer colouration and presents an even more pleasing appearance.

Description: Entire head, back of neck sandy -brown (isabelline); upper back fawn-colour; lower back, rump, and upper tail-coverts dark fawn-colour, the feathers of the lower back with dusky centres; wings cinnamon-brown; under parts vinous-brown; abdomen and ventral region white; tail: central feathers dusky-brown, broadly tipped with brown, remaining feathers blackish-brown, broadly tipped whitish fawn-colour On the sides of the neck are two blackish patches variegated with fawn-colour, and the neck is flushed with refulgent vinous-pink. Bare skin round the eyes red; legs and feet red. Total length 11½ inches, of which the tail measures nearly 5 inches (approx. 4⅞in.).

The female is slightly duller, more slenderly built, and the ashy-wash on the sides of body and back more distinct than in the male.

Juvenal plumage, very similar to adults, but paler, and the underparts are sandy-brown; no neck patches.

It is a native of N.E. Africa, and is a very pretty and handsome dove.

I obtained these birds from Mr. Rogers, of Liverpool, who, I believe, got them from the Giza Zoo at Cairo. There were four of this species among various other doves, and I liked them so well that I brought them away with me. On my arrival home, the weather being warm and fine, I selected what I felt sure were a true pair, and turned them into my large aviary—I had no hesitation in doing this, as the birds were in perfect condition and plumage.

The outward difference between the sexes being infinitesimal, I first picked out, as a hen, the smallest and slimmest bird of the four, and then took the largest and boldest of the other three, and felt pretty sure that I had picked out a true pair, and later events proved this to be correct. The other two

I put into another aviary, and I feel sure they are both of the same sex, as they have never shown the least inclination to pair, nor make any attempt to construct a nest. I believe them to be males.

The pair in the large aviary settled down almost at once, and in about a fortnight I saw the cock driving the hen about and displaying to her, but, at first, she took but little notice of him—she evidently had not fully got over the importation journey and change of home, but the male persisted, and a little later I saw her carrying small twigs into a clump of elder bushes, in the forks of which they constructed a fairly substantial nest of stout twigs for the base, and finer twigs on top. The hen laid almost immediately, and in due course hatched out two squabs, which were fully reared. They remained in the nest until they were fully feathered, and there was barely room for both. I looked at them several times and began to wonder when they would venture out, for they appeared as well grown as their parents. Eventually I saw one young bird perching in the elder quite close to the nest. When at last they began to go about the aviary they were able to do so as easily as their parents. This is quite different to most species of doves, as the young mostly leave the nest at a very early age. and, being somewhat helpless at first, losses are not uncommon, and I was gratified that the Isabellines were wiser than most of their kind.

The parent birds soon brought them over to the seed tray, and they started at once to pick up seed for themselves.

Without loss of time the hen laid again in the same nest, and brought out another pair of strong young doves as before.

They at once went to nest again, as before occupying the original nest, and brought out another pair of equally strong young birds, though the weather was then quite cold, with much rain.

Just before the above pair was hatched I wanted to send a pair away to a friend, and had great trouble in picking them out, owing to the adult hen being in moult and the earlier youngsters with the adult plumage all but complete.

When the young left the nest they lacked the dark body markings and neck patches of the adults and their plumage generally was paler than that of their parents.

This species are no trouble in the aviary among the other thirty or so small doves of various species, only showing a little temper when their nest was too closely approached. The young were equally amiable, and did not interfere at all with their parents' subsequent nesting operations, nor with the later young birds after their exit from the nest.

When Mr. Page was here on a visit in July last he rather thought this species had been bred at the London Zoo, but subsequent enquiries prove that they have not yet had the species in their collection, so, apparently, this is the first time Isabellines have reared young in England.

◆

Correspondence.

ENGLISH TICK-KILLING BIRDS.

SIR,—I have recently lost two Australian finches at liberty from, what appears to be, an unusual cause. Some days ago I noticed a Crimson Finch with a large grey tick, about the size of a pea, on his cheek. The bird's eye on the same side was quite closed up. I caught him in the evening, and with some difficulty removed the tick. I then let him go but never saw him again, and he is clearly dead.

Not long afterwards I noticed a Diamond Finch that seemed ill. It did not show the ordinary symptoms of chill, pneumonia, or egg-binding, but had a dazed appearance. I caught it up and found it in excellent condition, but it died the same day. The aviary attendant found another large tick on its head, which had escaped my observation, owing to its resemblance in colour to the bird's plumage.

It may seem unlikely that a single parasite could kill a healthy finch, although a man would certainly feel seedy if he had a creature the size of a cat hanging on to him and sucking his blood!

On the other hand certain diseases fatal to cattle are conveyed by the bites of South African ticks, while in Australia there are ticks whose bite is fatal to carnivorous animals; so it may be that British ticks are capable of killing small foreign birds.

Havant. (The Marquis of) TAVISTOCK.

SIR,—The following report confirms my idea that the birds were killed by ticks:

"The Diamond Finch was undoubtedly killed by the tick you mention, "which, I presume, from your description to be a sheep tick. This "beast had bit the bird in both eyes, also on various parts of the head, "the whole of the head being covered with blood. The body was quite "free of wounds, and was sucked dry of blood. When I am mounting a "ram's head, I have often been bit by them, and I can tell you get an "interesting and lively time until you get rid of them, so I pity the poor "little bird who gets one on it.—F. KIRBY, F.Z.S.I."

I wonder if British birds are ever attacked?

Havant; Odtober 6th, 1922. (The Marquis of) TAVISTOCK.

Nesting of the Cape Turtle Dove *(Turtur capicola.)*

My fellow member Mr. Guy Falkner wrote me in the late summer of 1921 if I would accept a pair of this species; he had brought a few back with him when he returned from Africa, which at the time were on deposit at the London Zoo (I believe they have since been presented to the Zoological Society), and as I had never kept this species previously, I accepted his offer with much pleasure. They duly arrived, in the late autumn of last year, I think, and I became quite interested in them. On arrival I put them into my large aviary, where they passed the winter without mishap.

In appearance they are very like the common Barbary Turtle Dove (*T. risorius*), but are much greyer in tone, and of slightly more slender build. As I find it difficult to get them sufficiently near to make a close description of their plumage I am quoting same from the *British Museum Catalogue.*

"*Adult male.*—Pileum leaden grey, lighter on the forehead, and "shading into vinous-grey on the sides of the head, neck and chest, "anterior part of the cheeks and throat grey; a black line on the lores, "not always well defined; on the hind neck a broad black collar, partly "edged above and below with grey; back, inner upper wing-coverts, "innermost secondaries, and scapulars grey-brown; passing into leaden "grey on outer upper wing-coverts; lower back and rump grey-brown "along the middle, leaden grey on the sides; upper tail-coverts grey-"brown; middle of abdomen buffy white; under tail coverts white; "primary-coverts and quills blackish, with pale narrow edges; under wing-"coverts leaden grey; central tail feathers brown-grey; the lateral ones "black on the basal half; the terminal half it white on the outer feathers. "grey on the inner ones; tail underneath black on the basal half, white "on the terminal one, the outer feathers have the outer web white; 'iris "brown; bill black; legs pinkish-red.' Total length 10.5 inches, wing 6. "tail 4.6 bill 0.55, tarsus 0.85."

"*Female.*—Similar to the male."

"*Young.*—Duller and with pale edges to the feathers of the upper "parts."

"*Habitat.*—Cape Colony, extending into Natal and Southern "Transvaal."

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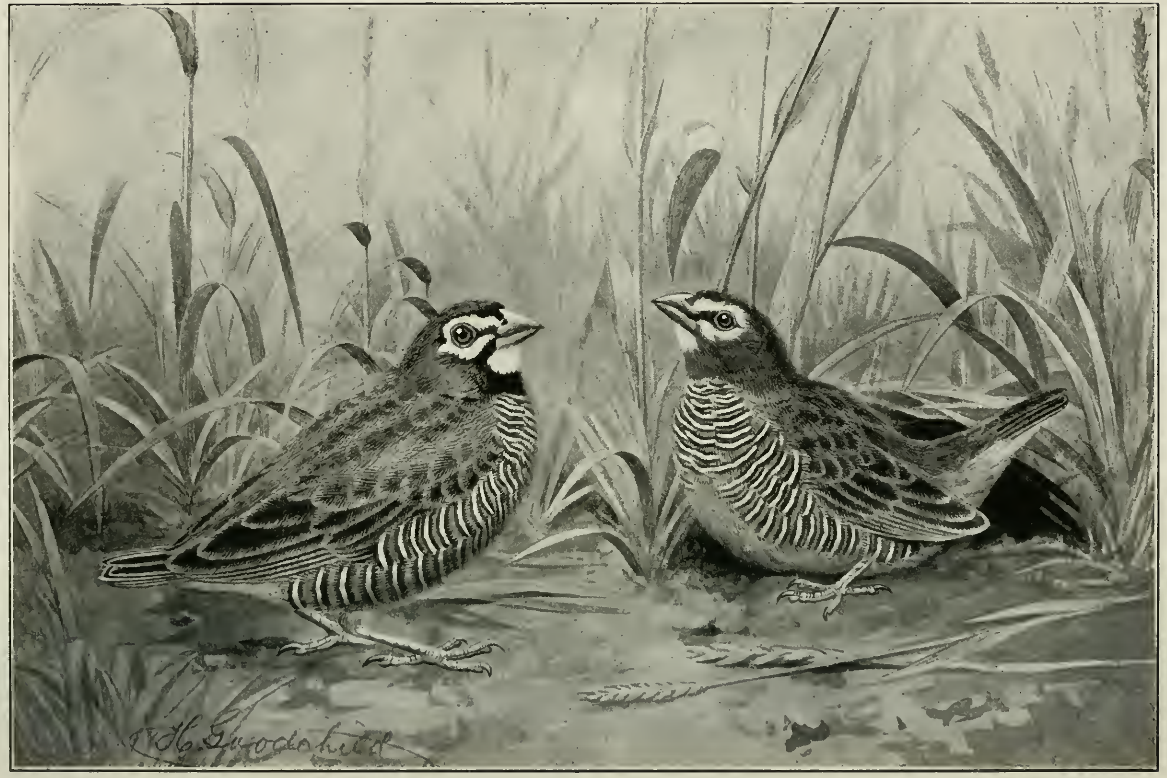
To be continued.



A.P.P.

Quail Finches *(Ortygospiza polyzona)*.

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BIRD NOTES:

— THE —

JOURNAL OF THE FOREIGN BIRD CLUB

Quail Finches, *(Ortygospiza polyzona).*

By Capt. G. E. Rattigan, F.Z.S.

So far as I am aware there has been no instance of the successful breeding of Quail Finches since they were bred for the first time on record by that extremely clever aviculturist, Mr. Reginald Phillipps. At all events, no record of such an event, if it occurred, appears to have been published. A very delightful account of Mr. Phillipps' success appears, from his pen, in the *Avicultural Magazine* of May 1908, Third Series, Vol. I., page 37, to which I would refer my readers. My own experience with these charming little birds differed in some respects from that of Mr. Phillips. The Quail Finch is unlike most of the mannikins, in which family it is, rather unhappily, I think, included. (*Note.*—I say unhappily because it certainly does not resemble the mannikins either in appearance or habits, and it is anything but dull and lethargic, all of which terms have been applied with some justice to the other species of mannikins. Nor do I know of any other mannikin possessing a red bill). The sexes are easily distinguished. A rough description of the plumage is:—*Cock*: Brown above, outer tail feathers edged with white; throat and cheeks black; a large white spot on chin; a broad white orbital ring; below greyish, barred black and white and passing to chestnut on lower breast. Beak red; feet brown; irides hazel. *Female*: Altogether duller; breast and sides barred brown and white, and it lacks the black on cheeks and throat.

FIELD NOTES.

Habitat.—From Abyssinia to Eastern Cape Colony and on the west from Senegal to Angola. *Wild Life.*—Shelley, in *Birds of Africa*, quotes Stark as follows:—" These pretty little birds are usually met with in small flocks on open, grassy flats. Here they feed on the ground, under the grass, on fallen seeds. If disturbed, they rise suddenly with a curious metallic "chirp," fly a short distance and settle again directly on the ground without first perching on bushes or weeds, but they sometimes rise with their usual sharp cry, and fall again on the spot from which they rose." Mr. T. Ayres gives the following account of a nest found near Potchefstroom on the 30th April:—"The nest was a very rough structure, placed on the ground amongst the grass, and not easily seen from its being composed of dead blades of grass; it was lined with a few coarse feathers, and in shape much like the nests of some of the Sunbirds, with a projecting cave over the entrance, but all very rough. The eggs were five in number, and pure white.

NESTING NOTES.

I procured my first pair of these birds in 1921, and this pair nested, and reared two youngsters for me that year. Not wishing to disturb them, I left them unmolested, and though I knew the position of the nest, it was not until after the young had flown that I searched for and found the nest, not, however, without some considerable difficulty. This nest, which externally exactly resembled the others described hereafter, contained one infertile egg, pure white, and a rounded ovate in shape.

This season (1922) I commenced operations with two pairs. These were turned out into a large naturally-planted aviary, together with a mixed assortment of other small foreigners on the 8th April. The weather for the next few days was simply vile. On the 18th April, quite a nice day for a change, I noticed a cock Quail Finch flying around in a somewhat undecided manner with bits of grass, or rather fine, dead grass. The next morning I found him visiting a clump of maidenhair bush, and on closer examination I found traces of the commencement of a nest. This was completed on the 20th April, though feathers were continually added by the cock even after the young had hatched. Incidentally, the cock alone seems to do all the fetch and carrying of materials needed for the construction of the nest, though I fancy the hen lends her aid to the construction thereof. The nest so far from being an "untidy structure" was very neatly and compactly built, and was composed of fine grass cosily lined with feathers.

About the shape and size of a cricket ball, or perhaps a shade larger, it was about a foot from the ground, about the middle of the bush and very well concealed. It was beautifully woven together and, I should say, waterproof. When approaching it the old birds would always circle around for a few seconds before alighting, as they always did finally, on the top of the bush. There another slight pause took place, and finally a rapid little run down to the nest. This was the procedure invariably adopted, and they always alighted upon exactly the same spot on the bush and always after a slight pause followed the queer, hurried little zig-zag run down into the nest. The first egg was laid on the 21st April, and the clutch of five eggs completed on the 25th inst. Incubation commenced with the laying of the first egg, and both sexes share in the duties of incubation, one relieving the other about every two hours. No attempt at raising a second brood has ever been undertaken by any of my birds. The eggs did not hatch until the 10th June or 19 days later, by which time I had almost made up my mind that they were all duds. The young, four in number, were jet black in colour, sparsely covered with greyish down. All went well till the 20th May, when, on making my usual rounds of inspection after tea, I found to my horror that the poor little quail finches had been thrown out of the nest and were lying as though dead about two feet away on the ground. I picked up three of them; the fourth had vanished without trace, but they felt quite cold and appeared to be lifeless except that the blood was still slowly oozing from a nasty wound over the base of the bill of one of them. This fact encouraged me to hope that there might yet be some slender chance of saving them. I therefore took them inside the house, and after wrapping them in warm cotton wool, held them over a stove. My efforts were soon rewarded, and in a surprisingly short time I had the satisfaction of seeing the little things begin to show signs of returning to life. I placed them, still wrapped in cotton wool, in a small cardboard box and left them near the stove. In about an hour and a half they had completely recovered and began to gape hungrily for food. I noticed that their crops were crammed with millet seed, which was plainly visible, and appeared to contain nothing else. The old birds are fond of mealworms, but none were supplied to this aviary during this period, and I believe the young to have been entirely raised on seed, and almost entirely on dry seed, for there was very little seeding grass available in their aviary at that time this year. Now the question arose: should I return the youngsters to their parents, who had probably deserted the nest long since, or entrust them to a canary to rear? With some considerable misgiving I selected the former alternative and, having replaced the youngsters, sat near by to await events. An hour passed, and although one or other of the parents alighted occasionally in the grass near by, neither seemed in the least inclined to venture a nearer approach. It was now growing dusk, and fearing the little birds would die of chill or starvation, I decided on a bold course of action, which was no less than to catch up both parents and introduce them one after another into the nest with the object, of course, of showing them that their prodigals had returned home. I successfully carried out this manoeuvre and, after introducing each parent, held my hand over the entrance of the nest for about a minute in order to give it time to recover from its fright and to realise the presence in the nest of the young birds. The hen dashed out as soon as I had removed my hand, but the cock stayed in the nest for about a couple of minutes later, and I had hopes! Nor did they prove vain, for about 20 minutes later it was just light enough to see the little cock bird alight on the maidenhair bush in the usual spot, and, after a very long and nerve-racking pause, toddle down quickly into the nest. My relief can be perhaps better imagined than described! Had the plan failed I had decided upon caging all the family up together and hoping for the best. The three young birds finally left the nest on the 27th May, or 17 days after hatching. They were very strong on the wing and have never looked back since that nearly disastrous day.

The second pair, which occupied the same aviary, commenced operations on the 28th April. The nest was completed on the 29th, and the first egg laid on the 30th April. The nest was placed on the ground in a small tuft of grass in a rather bare patch, about three feet behind a small cump of bamboos. Except that it was not *quite* so neatly made and was lined with one or two fronds of bamboo besides the usual feathers, this nest exactly resembled the one already described. (It would appear that the lining of the nest varies slightly, for last year's nest contained a lining of rabbit's fur in addition to feathers). The clutch in this instance, however, only numbered three. The eggs hatched on the 18th May, or 18 days after the laying of the first egg. The incubation period of this species appears to differ rather unexpectedly from that which is usual for other small birds. The young left the nest on the 4th June, but were very weak on the wing, and, I think, left the nest a bit too soon, owing, probably, to the fact that I rung them in the nest on the previous evening. However, they throve well, and were soon almost as strong and lusty as the youngsters from the first nest. One pair of these youngsters went to our Editor's aviaries, where I hope they may do as well for him as their parents did for me; a second pair is booked to a well known French aviculturist.

A FEW GENERAL REMARKS.

Quail Finches are really charming and, in my opinion, most attractively coloured little fellows. The cock especially is a regular little dandy and keeps his plumage as spic and span as possible. They are, of all birds, the most peaceably disposed and law abiding citizens in a small mixed collection of various species, both towards all other birds, as well as their own species. Except during the actual excitement of the breeding season I have never seen them take part even in the smallest squabble. As this period approaches, however, the little cocks grow more and more excited, and later possibly assault all and sundry who venture to approach the vicinity of their nests with much angry and excited chirruping. At such times the two cocks frequently engage in pitched battles, rising into the air with shrill metallic chirps of indignation. There the contest is continued for a few seconds, after which each returns to his own territory none the worse for the encounter, and from thence each bursts forth into a comic little paean of victory. My old birds seldom alight anywhere save on the ground, though when disturbed they will sometimes perch on the top of an old ivy-clad stump in their aviary, but one of my young hens, now in an inside flight, perches as frequently up aloft as upon the ground. Mr. Phillipps' description of their love song is, I think, a very apt one, so I am taking the liberty of quoting it *in extenso*. He writes as follows:—" When I was a boy, there was a certain cottager's garden which had in it a large cherry tree, and year by year, as the season of the cherries came round, in order to frighten away the birds, the old man used to fix up in the tree a clapper arrangement which was worked by a diminutive windmill. As the sails revolved, two heavy, loosely-hung pieces of iron were banged against an empty gunpowder cannister—a common object in old muzzle-loading days—with results which were more audible than musical; and I do not know of anything which reminds me so much of this ingenious contrivance of the old cottager as the staccato song of the Quail Finch, which goes somewhat as follows:—Click clack click clike cluck cleck click cloih cluck click cleck clack cluck clike cloike, etc., etc. Now if this score be read slowly, it may appear a little tedious; it should be galloped through, as when a gust of wind whirls round the arms of the windmill, and great care must be exercised lest a slur or a false note be uttered; and as the wind is uncertain and unequal, so the song bursts forth at one time with startling suddenness; at another just for a little spell; at another for a prolonged period, according to the spirit of the moment. I am conscious that no combination of words which may be found in any dictionary can adequately describe this unrivalled composition—but it has only to be heard to be appreciated!" With the latter sentiment I am in thorough accord. Towards evening all the Quail Finches grow very restless and fly round and round the aviary, making a tremendous clatter. Their usual flight is a curious sort of bobbing motion, and they often drop to earth with surprising abruptness. But they sometimes make use of a much more rapid and what one might term purposeful flight, when the bobbing motion is almost entirely absent. The love dance is very curious. The little cock faces the hen and draws himself up very straight and to his full height, and then rapidly vibrates his wings " singing " hard all the time. The wings are kept half open and held out stiffly, and then follows this extremely rapid, vibrating motion, almost a sort of shivering. I have sometimes seen a large moth go through a very similar sort of vibrating motion with its wings, and of a truth the bird at such moments more resembles a large moth than a bird. Usually it stands quite still but occasionally it will pivouette slowly and almost on tip-toe as it were around the hen with its feet apparently only just touching the ground. In fact it is propelled, at such moments, more by its wings than by its feet, for such is the extraordinary pitch of nervous excitement into which the little chap is thrown that the fever is even communicated to its legs which shiver like those of a man with the palsy, and are, I am sure, quite incapable of performing their usual functions. I have covered a lot of space in trying to pay some tribute to the attractive qualities of this little bird, and yet feel painfully conscious of the fact that I have altogether and signally failed to do it justice. I can only hope then that some abler pen than mine will one day be dedicated to its service.

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Successful Breeding of the White-breasted Dove.

(Phlogoenas margaritae).

By H. E. Bright, F.Z.S.

Mr. Page has already given a description of these beautiful Doves or Pigeons, so I cannot do better than quote him. He calls them: " a near relative of the Bleeding-Heart Pigeon, " from which, however, they widely differ in deportment and " colouration, and to which we have given the trivial name of " White-breasted Dove or Pigeon. The Bleeding-Heart " Pigeon in captivity spends most of its time upon the ground, " and during two days we did not see the White-breasted " upon the ground at all. The general colouration of this " species is rich vinous-cinnamon refulgent with a purplish " sheen; upper eye-streak, lower eye-region, whole of the " throat and breast white, narrowly margined with black; the " whole of their appearance being very handsome and " gorgeously beautiful "—I have, since Mr. Page's visit, discovered a point of importance which we both missed when looking at the birds. It is the means, in my pair at all events, of distinguishing the sexes. In the male bird the white eye-streak meets over the base of the beak; in the hen bird there is a narrow dividing line where the dark colour of the head runs right down to the beak, cutting through the white. I noticed this while looking at the hen as she brooded her young. She was very tame at this period, and allowed one to come within a foot of the nest without her being disturbed, or causing her to leave the nest.

They came over in a consignment of Australian birds, though their native habitat is New Guinea; I was assured they were a true pair, but was much amused later on, when talking to their owner, to hear that he thought they were two cocks; he had evidently not noticed the above mentioned difference. They had been well cared for on their long journey; and were in good condition, except that one had its wing cut short right across the primary flights.

On arrival I gave them their liberty in my large aviary, thinking they would be all right, but found the cut-winged bird climbed up as high as possible, and then went bump on the floor of the aviary when anyone was near, so I had to cage it until the flights were renewed. Ths took some weeks, but may have induced the inclination to breed. When the power of flight was restored, the weather being fine, this bird was given its liberty, and the two birds evidently enjoyed the renuion.

The desire to nest was immediately manifest; a site was soon chosen, a well-sheltered spot in a creeper growing thickly on one of the roof-standards of the out-door flight. Here they constructed the usual flimsy dove nest, consisting of a few thin twigs loosely put together. The hen sat closely, but the cock was very wild and used to dash off when anyone came near the aviary. I am convinced one young bird was hatched out, but I never saw it, though I saw them feeding for a few days and then they deserted the nest and I found only an egg there; both nest and egg were of typical dove-type. I think the cock must have dragged out the young bird in one of his wild rushes.

Almost at once they went to nest again, selecting a precisely similar position for the nest, but this time it was the corner, creeper-clad post, by the door of the aviary, and, I must say, I had very faint hopes of any young being reared in such a position, considering the wildness of the cock bird. However, fortune favoured me and all went well. The apology for a nest was duly completed, and two eggs deposited therein. The hen was very steady, sitting closely, in fact, never left her eggs or young except on one occasion when they were just about ready to fly, and I alarmed her by undue curiosity—I badly wanted a look at her family. She got nervous and dashed off wildly, and simultaneously out flopped first one and then the other of the two young birds. It was a cold, damp evening, so I thought I would try and put them back in the nest—I had tried this on several occasions with the young of other species of doves, but always found them jump out again—but had very slight hopes they would remain in the nest; however, this time I got both of them and put them in together, keeping my hand over for a little time, then taking it away quickly when I saw the hen coming back. I slipped away, and the hen came right on to the nest and settled down for the night previous to this one youngster came very near to disaster, for, when they were about four days old, the cock bird, in one of his wild rushes, dragged one of them out of the nest; fortunately it was found and returned to the nest in time. After the former episode the young remained two more days in the nest, although one of them was well able to get about when I disturbed them; the younger one is less fully feathered.

After leaving the nest I never saw a sign of them for a full week, then I found one, and a few days later saw the other, but it was days later still before the parent birds brought them into the bird-house, where the birds are fed.

Now (October 23) they come regularly, and I have seen them feeding on several occasions They are rather unusual looking birds, being smoky-black all over, except for a slightly grey shade on face and breast. There is hardly a trace of the beautiful purplish sheen of the old birds, and no white markings. Their beaks are light horn-colour, but quickly beginning to turn darker. What I take to be the young hen is a little lighter in colour and a little greyer on face and breast than the other one, which, I presume, is a cock, also at present a little smaller.

Although my birds spend very little time on the ground, I think they have a very decided look of the Bleeding Heart Pigeon. The only sound I have heard them make is a very unmusical grunt. The cock made this noise continually when driving the hen to nest.

They still go about with their two young, which are very wild, and have evidently finished all breeding operations for this season.

I have found them quite good tempered with other doves, of which there are a good number in the aviary, not interfering with them in any way, nor have the other doves molested them.

[As Mr. Bright quotes me, I may be permitted to add a few lines—the description quoted is a very sketchy one, and even at that was taken under great difficulty, for they were very wild, and a near approach was impossible—and the colouration of some parts was only perceptible during their wild dashes from one part of the aviary to another, so, for comparison purposes, I append their description as given in the *Brit. Mus. Cat.* Vol. xxi., taken, of course, from skins:—

"*Adult Male*: Upper part of head, upper hind neck, and a sub-" ocular band from the base of the lower mandible to the nape of the " neck black; lores, sides of the forehead, superciliary stripe, throat and " crop region pure white; feathers of lower hind neck, mantle, upper back, " scapulars, and upper wing-coverts brown-black with beautiful purple " edges; rump brown-black with purple reflections; lower breast, abdomen " and under tail-coverts slate-black, the feathers on the sides of the " breast with purplish edges; quills, primary-coverts and under wing-" coverts brown-black; under surface of the quills slate-black; tail black; " bill black; feet dull brown-red; iris black (D'Alberlis). Total length " about 9½ inches, wing 5½ inches."

Some of the discrepancy is the difference between life and death, the remainder is accounted for by the difference of having a skin in the hand and describing the bird as it disported in the aviary. Under the play of light the colouration was as described at the beginning of these notes—purple edges becoming merged under the conditions into a general sheen, which appeared as it flew to be strongest on hind neck, lower back and sides of breast. When at rest under the shelter roof very little purple could be seen from the nearest point it allowed us to approach. I congratulate our member, not only upon the possession of a rare and beautiful species, but also upon his luck with and management of them—it is a medal well earned.—W. T. PAGE.]

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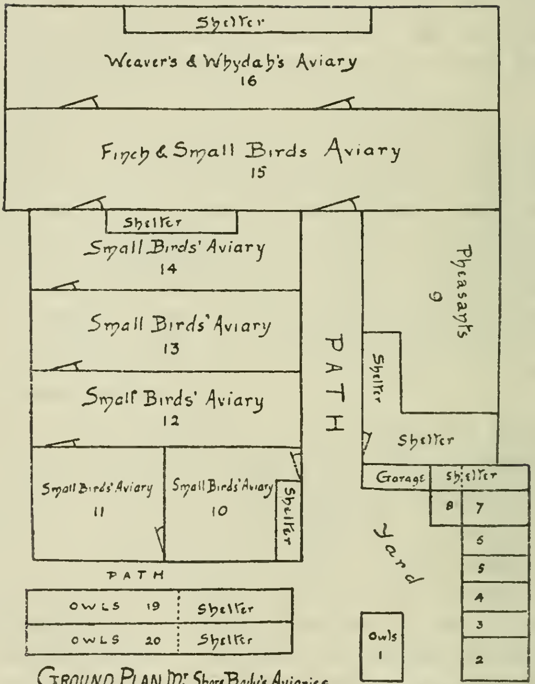
Shelter
Weaver's & Whydah's Aviary
16
Finch & Small Birds Aviary
15
Shelter
Small Birds' Aviary
14
Small Birds' Aviary
13
Small Birds' Aviary
12
Small Birds' Aviary
11
Small Birds' Aviary
10
Shelter
PATH
Pheasants
9
Shelter
Shelter
Garage
Shelter
8
7
6
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3
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Yard
PATH
OWLS 19
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GROUND PLAN, Mr Shore Baily's Aviaries.

Not drawn to scale.

Visits to Members' Aviaries.

By Wesley T. Page, F.Z.S., M.B.O.U.

(Continued from page 229).

Mr. Shore Baily's Aviaries and Birds: On my arrival at Boyers House I met my host and hostess; it was still raining, but after tea and avicultural gossip, we walked through the aviaries in waterproofs—do I hear? " What mad fools those aviculturists are "—well, we do not mind, gibe on, dear reader, if you draw any satisfaction therefrom—we would not deny you this pleasure for worlds! Then came dinner and a long talk before retirement for the night.

Aviculture here is upon a large scale—there are twenty aviaries, not one of them small, and several are huge enclosures, besides the pheasant runs, crane and pea-fowl paddocks, and the waterfowl on the lake—one clear day was all too short to take them in, and there was altogether too much to visualise them for future use, effectually and mentally, even with the aid of notes—as it is, I missed the pheasantries altogether except for the *Crossoptilons*. Therefore, though my description must necessarily be crude, it cannot be crowded within the compass of one instalment, nor justice be done either to the accommodation or the large series of birds, and, of course, in so short a period I did not glimpse all of them—however, if my readers are as interested in my notes as I was during the few hours I was jotting them down amid the birds, this description will not have been written in vain.

The aviaries generally have a rough natural character, plenty of herbage and bush cover, yet all have an open appearance—there are, however, plenty of retreats and natural cover for the birds. For the roof-standards willow, silver poplar and elder poles (green-wood) were used; most of them have grown, and, though cut back annually, they form thick bushes, with plenty of stubby forked branches for nesting sites—this intensifies the rough *natural* aspect of the aviaries, there being only the wire netting above one's head and round the sides to remind one the birds are enjoying only restrained liberty, and some of the aviaries are so huge that even this impression is lost. The accompanying ground plan and photos of the weaver aviary will enforce what I have written, and the careful thought that has been expended upon their planning, also how effectually extension has been carried on, so as to form a complete whole. The numbers on the ground plan are mine and may not accord with those Mr. Shore Baily uses; they were given as I walked round, so as to enable me to localise my notes, which latter mostly consisted of a list of the birds I saw. With this introduction I will now ask my readers to accompany us in our walk through the aviaries. I may say all this accommodation runs along one side and the back of the lawn, thick shrubberies shutting them out of vision from the house windows.

Aviary No. 1.—Aviaries Nos. 1 to 8 are constructed round the stable and garage yard, the shelters of Nos. 7 and 8 being the portioned-off stable. No. 1 stands alone, a roomy aviary fully 15ft. high—this is given up to a pair of African Spotted Eagle-Owls (*Bubo maculosus*) which have already been described by their owner—they are handsome birds, in perfect condition, and should ultimately breed.

Aviaries 2 to 8 form one range on the opposite side of the yard, and consist of a long shed with wire-netting front and partitioned off into the respective divisions. They are roomy and form very effective parrakeet aviaries.

No. 2: This contained several Pearly Conures (*Pyrrhura perlata*), a rare and pretty species, which next season should win our member yet another F.B.C. breeding medal.

Their description from *Brit. Mus. Cat.* is as follows:

> " *Adult*: Green; a dull frontal band, another on the lower part of
> " hind neck; cheeks, upper breast, sides, vent, outermost upper tail-coverts,
> " bluish; pileum and nape brown; cheeks more or less greenish on the
> " upper part; ear-coverts brown-grey; throat and breast brown, with lighter
> " edges; feathers of the breast with two cross-bands—a broader one light
> " brown, and a second one narrow and blackish at tip; a brown-red patch
> " on middle of abdomen, sometimes scarcely visible, and always more or
> " less hidden by the green edges of the feathers; bastard-wing and primary-
> " coverts blue; first primary black, the remainder deep blue, with a
> " narrow brighter edge on the outer webs; secondaries blue, with the outer
> " webs green; tertials green; bend of the wings and smaller under wing-
> " coverts red, the greater ones blackish, sometimes some of them reddish;
> " quills underneath blackish with a slight olive tinge; tail above brown-red,
> " but redder at the base of the inner web of the feathers; bill horn-brown;
> " feet dusky. Total length 9.5 inches, wing 5, tail 4.6, bill 0.65, tarsus
> " 0.42.—B.L.C., Vol. p. 227-8."

I quote the above as the light was not good, and under the shadow of the roof one could not see much, neither were they steady enough to allow close, continued observation.

No. 3: Similar dimensions but empty.

No. 4: This aviary contained a flock of blue-bred Green Budgerigars (*Melopsittacus undulatus*) which had not proved (most aviarists have had similar experiences this season) as prolific as usual.

No. 5: This enclosure was given up to Cockateels (*Calopsittacus novae-hollandiae*), and contained adults and young birds.

No. 6: Empty.

No. 7: This contained a pair of Maximilian's Parrots (*Pionus maximiliani*), and a pair of hybrid Necklace-Senegal Doves, which are fertile *inter se*.

No. 8: Here were housed a fine pair of Azure Jays (*Cyanocorax caeruleus*), as beautiful as Fairy Blue-Birds, but as Mr. Shore Baily has already described this handsome species (B.N., 1922, p. 47) I need not linger thereupon, with so much to describe. They were in perfect health, and one wonders that they have not bred.

No. 9: This aviary consisted of a roomy run and shelter, and contained a small flock of young Manchurian Crossoptilons (*Crossoptilon manchuricum*)—see last issue of B.N.—I bespoke a pair of them, which have just come to hand, and are very strong, handsome birds—they do full credit to Mr. Shore Baily's skilful rearing.

We now pass on to the naturally planted wilderness aviaries, one or two of which are merely summer quarters for their occupants. All have streamlets of running water meandering through them.

Small Birds' Aviary No. 10: This is about 20ft. square approximately, well planted with privet and various evergreen shrubs, with a nice shelter in one corner. It contained:

5 young Peacock Pheasants (*Polyplectron chinquis*).
1 pair Saffron Finches (*Sycalis flaveola*).
1 pair Lilac-crowned Fruit Pigeons (*Ptilolupus coronulatus*).
1 pair Grey Cardinals (*Paroaria cucullata*).
1 ♂ S.A. Dick-cissel (*Spiza americana*)
2 African Thrushes (*species incert*).

All were in perfect health, apparently contented and happy. The young Peacock Pheasants were birds of the year and a fine quintet.

Small Birds' Aviary No. 11: Similar to number ten, but with no shelter. Here were housed:

1 pair New Guinea Quail (*Synaecus plumbeus*) and brood of young.
1 Red Mountain Dove (*Geotrygon montana*).
1 pair Cordon Bleus (*Estrilda phoenicotis*).
1 pair Black-cheek Waxbills (*Estrilda erythronota*).
1 pair Grey Singingfinches (*Serinus leucopygius*).
Algerian Chaffinch mated to English Chaffinch.
1 pair African Rock Buntings (*Fingilla tahapisi*).
1 pair Pope Cardinals (*Paroaria larvata*).
1 ♂ Black-headed Siskin (*Chrysomitris icterica*).

A very pretty crowd they formed too, dispersed amid the living greenery; especially interesting were the family party of New Guinea Quail—this is a rare species, and with it our member gains another F.B.C. breeding medal—at the least movement the chicks scattered and became invisible amid the ground herbage. *Vide* a past issue of current vol. of B.N.

Small Birds' Aviary No. 12: A roomy natural aviary some 40ft. by 15ft. It contained:

1 pair Monaul Pheasants (*Lophophorus impeyanus*) with one egg.
1 pair Red-collared Whydahs (*Penthetria ardens*).
1 pair Cuban Finches (*Phonipara canora*).
1 pair Rock Buntings (*Fringilla tahapisi*).

The Monauls formed a gorgeous spectacle as they moved about the aviary; the hues of their iridescent plumage change with almost every movement and beggar description. The other species are beautiful but well known; the Rock Buntings are rare, though odd specimens have occurred for some years past.

Small Birds' Aviary No. 13: Similar in size and character to number twelve. Disporting about the aviary were:

1 pair Misto Seed-finches (*Sycalis luteiventris*). See Sept. B.N., p. 179.
1 pair Zebra Finches (*Taeniopygia castanotis*).
Goldfinch mated to Sikhim Siskin (*C. tibetanus*).
1 pair Brazilian Finches (*species incert*).

As Mr. Shore Baily has already told the tale of the breeding of the Misto Seedfinches (another medal record), there is little for me to add—they are of unpretentious appearance and do not make as good a show as do many of the freely imported species. The Brazilian (for want of a better name) Finches are new to me, and, I think, rare in this country as live birds. The few particulars I managed to glimpse concerning them are—frontal-band, throat, and rump brick-red, rest of plumage greyish-brown.

Small Birds' Aviary No. 14: A replica of the foregoing, but it has a good shelter (Nos. 12 and 13 have no shelters). In this aviary the growing cover is excellently arranged, nice open spaces, yet ample cover; it was easy to pick out the birds, though this aviary had but few occupants, viz:

1 pair Talpacoti Doves (*Chamaeplia talpacoti*).
1 Scaly Dove (*Scardafella squamosa*).
1 pair Buffalo Weavers (*Textor niger* or *senegalensis*).
1 pair Rock Buntings (*Fringilla tahapisi*).
3 S. African Buntings (*Fringillaria impetuani*).
2 ♀ Bearded Tits (*Panurus biarmicus*).
1 ♂ Green Singingfinch (*Serinus icterus*).

The Talpacoti Dove is usually a free-breeding species, yet in apparently ideal surroundings this pair has not reared any young this season, so far as my notes go—one, however, could hardly expect any self-respecting bird to go to nest in such weather as we have experienced this past season. The Buffalo Weavers are uncommon and new comers—these formed part of a consignment of African birds brought over by Dr. E. Hopkinson early in the summer—they have settled down well, but up to the time of my visit had made no attempt to go to nest. The S.A. Buntings were either on the wing or skulking in dark corners while I was in the aviary, so I got no opportunity to note details of their plumage.

Finch and Small Birds' Aviary No. 15: A still larger aviary and beautifully arranged, though it contains no shelter, the birds migrating elsewhere for the winter months. One would have expected, considering the space, excellency of natural cover, and the fewness of the occupants for so large an aviary, that every pair would have gone to nest and found all the live-food they required for the rearing of their young in the aviary. But, owing probably to the inclement season, things have not worked out that way.

Here I saw:

2 Ring Ouzels (*Turdus torquatus*)
1 pair Chingolo Song-Sparrows (*Zonotrichia pileata*).
1 pair Misto Seed-Finches (*Sycalis luteiventris*).

3 ♂ Paradise Whydahs (*Steganura paradisea*).
1 ♀ Crimson Tragopan (*Tragopan satyra*). Male died.
1 pair Diamond Doves (*Geopelia cuneata*).

The only family party I saw was that of the Chingolo Song-Sparrows, and I watched them delightedly. Garbed in blackish-brown, brown, and white, yet their sharply-contrasted colour-pattern made them noticeable and pleasing birds; they are also songsters worthy their name. Misto Finches have bred, but I did not see any of the young in this aviary; but, if I recollect aright, they had a brood in the nest.

Weavers' and Whydahs' Aviary No. 16: This is a huge and beautiful aviary, as will be seen from the photo which illustrates these notes. A pleasing feature of all these wilderness aviaries is the miniature streamlets of running water which meander through them, with, in the larger ones, clumps of tall reeds and willows on their banks. At the bottom of this aviary there is a large shelter-shed (a roomy aviary in itself), with open front, and a good depth of shingly gravel over the floor. Round several of the roof-standards were climbing rampant brambles, carrying masses of fruit. Again the birds were few for the space, but all the more charming to watch for that—they were almost as free as in their native wilds. I had an hour of delighted interest in this aviary, and the memory thereof will not soon fade. I noted the following:

Adult pair Manchurian Crossoptilons (*Crossoptilon manchuricum*).
1 pair Cape Sparrows (*Passer arcuatus*) and young.
1 pair Yellow-throated Sparrows (*species incert.*) from Brit. E. Africa.
1 pair Shore Larks (*Otocorys alpestris*).
1 pair Snow Buntings (*Plectrophenax nivalis*).
1 ♂ Abyssinian Weaver (*Hyphantornis melanocephala*).
1 ♂ and 2 ♀ Bramble Finches (*Fringilla montifringilla*).
1 ♀ Weaver (*species incert.*)

Waders' Aviaries 17 and 18: Description left over till next month.

No. 19: A roomy aviary at least 15ft. high, occupied by a fine pair of Bengal Eagle Owls (*Bubo bengalensis*) which have been fully described in past issues of "B.N."—they are now fully adult and an extremely fine pair.

No. 20: A replica of above, containing a very fine pair of Falkland Island Eagle-Owls (*Bubo virginianus falklandi islandii*).

(*To be continued*).

In the Weavers' Aviary.

The larger Baya Weavers' Nest took 3 weeks to construct. The bird had been about a week at work on the other.

August, September, and October in My Aviaries.

By W. Shore Baily, F.Z.S.

My summer holidays caused an unavoidable break in the notes on the happenings in my aviaries.

August 10th.—I returned for one day and found that the young Twites had flown; the Crimson-crowned Weavers (*Pyromelana flammiceps*) had hatched two young ones, but these had been drowned in a heavy rain storm; the Red-billed Weavers (*Quelea quelea*), whose nest was more sheltered, had two well-feathered young ones in the nest; the Egyptian Quail (*Coturnix*

Photo by W. Shore Baily, F.Z.S.

Twite at Nest.

communis) had brought off a good brood of little ones; two young Tinamous were being reared in a foster-mother. The Plumbeous Quail (*Synaecus plumbeus*) were also sitting again, but in looking for the nest, I had the misfortune to step upon and kill one of the first young ones—a very handsome little cock.

August 15th.—I again visited the aviaries and found that the Plumbeous Quail had hatched out five young chicks; my pair of Pope Cardinals (*Paroaria larvata*) were sitting, as also were my Red Ground Doves (*Geotrygon montana*). Nothing else had occurred of much interest.

August 20th.—Returned from holiday and found that Californian Quails (*Lophortyx californica*) had a nice lot of young chicks running about, and that the Rufous Tinamous (*Rhynchotus rufescens*) were again incubating.

August 22nd.—Hybrid Dove left nest.

August 24th.—Cuban Finch (*Phonipara canora*) sitting.

August 26th.—Second pair of Californian Quail brought off a good hatch.

August 27th.—Pope Cardinal sitting again. Her first nest of eggs failed to hatch.

August 28th.—Nine Rosey-billed Ducklings (*Metopiana peposaca*) hatched. As it was so late in the season, I transferred them to a foster-mother, where they are doing well.

August 29th.—Guinea-fowl hatched seven young ones. These were a second brood. They met with a tragic end, as, when they were a few weeks old they got through the wire netting into the Adjutant Storks' paddock, and were promptly swallowed by these birds.

August 30th.—Mahali Weaver (*Plocepasser mahali*) finished constructing a large nest. This was almost as large as a football, and much the same shape; it had an entrance hole in the side. The interior is roughly lined with sheep's wool, and the bird uses it to roost in at night. I have no hen with him, but he badly wants a mate, as he is always singing and displaying to the other birds in the aviary with him.

August 31st.—Had a visit from our Editor, Mr. Wesley T. Page, and, needless to say, had several long chats on birdy matters.

September 1st.—*Cabanis' Weaver (*Hyphantornis velatus*)

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* Damara Weaver Bird—*Andersson's Birds of Damara Land.*—Ed.

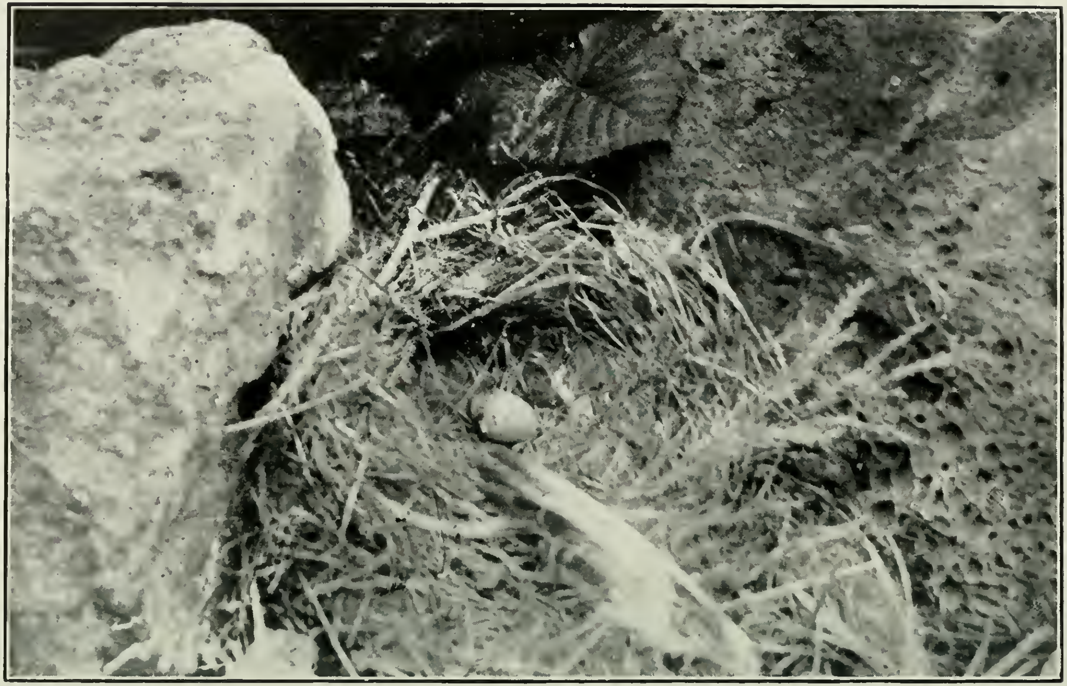

Photo by W. Shore Baily, F.Z.S.

Nest and Egg of Snow Bunting.
Note the wing of its dead mate adorning front of nest.

sitting again. This is the third time, and on each occasion the eggs have been infertile.

September 2nd.—Saw a large flock of Fieldfares flying over. This is very early (the earliest record) for this part of the country.

September 3rd.—Cape Sparrow (*Passer arcuatus*) laid.

September 4th.—Buffalo Weaver and Scaly Dove died, from the result of a very cold night I suspect.

September 5th.—Red Ground Dove (*G. montana*) sitting again. In every case this season they have deserted their eggs just as they were on the point of hatching.

September 6th.—Second pair of Cuba Finches (*P. canora*) sitting.

September 8th.—Hybrid Doves hatched one young squab.

September 9th.—Rats invaded Waders' aviary, and before we could catch them they killed a troop of Quail, five Knots, and my only Reeve.

September 10th.—Necklace Senegal Dove hatched out one young squab.

September 13th.—Had a visit from Dr. Hopkinson. He had met with very many of my birds in their wild state, and he was able to name for me some brown buntings I have had for years, which no one who had seen them previously had been able to do so. The birds were *Fringillaria impetuani*, and I hope one day to be able to record their successful breeding in my aviaries.

September 16th.—Cape Sparrows hatched.

September 18th.—Tinamou gave up sitting--eggs infertile.

September 20th.—Hybrid Dove left nest.

September 21st.—Young Yellow-rumped Serin (*Serinus angolensis*) on the wing. This youngster must have been at least a month old, and probably more, when I first saw it. I never found the nest, and the young bird must have lain very low. Probably this was the reason it survived, as, where there are many birds in the aviary, these little finches have but a small chance of surviving.

September 24th.—Snow Bunting (*Plectrophenax nivalis*) died. These birds do not seem to live long in an aviary. I have had quite a flock, but none of them have lived more than two years with me.* One would have thought that there should be no difficulty with such hardy birds.

September 25th.—Giant Whydahs (*Chera procne*) shed their tails, both on the same day.

September 27th.—Necklace-Senegal Dove hybrid left nest.

September 29th.—Plumbeous Quail (*S. plumbeus*) laying again.

October.—During this month we aim to get most of the birds caught up and placed in their winter quarters. Where the aviaries are large the only way is to trap them, and this is often a lengthy process, as the birds once they have seen their companions being captured, get shy of the traps and will refuse to go near them. I have more than once had birds die of starvation rather than enter them. In the smaller aviaries we catch them up with a hand net, and not always without casualties.

October 3rd.—Cuba Finches (*P. canora*) sitting again It was very late but I gave her a chance.

October 5th.—Young Cape Sparrows (*P. arcuatus*) left nest, but the early mornings were very cold, and they did not long survive.

October 12th.—Pope Cardinals (*P. larvata*) laid again—eggs removed.

October 16th.—Cuba Finch (*P. canora*) hatched out.

October 20th.—Lilac-crowned Fruit-Pigeon sick. In spite of every care it died ten days later from pneumonia. We had a very heavy frost, following a wet night, and this proved too much for the hen, although the cock was not affected. These birds would always roost outside, unless at roosting time the weather was very wild and wet.

October 30th.—Took Cuba Finches and their young inside. Very nice little birds.

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* I had a cock which lived 7½ years in my aviary, but it was an exception; its mate died nine months after arrival.—Ed.

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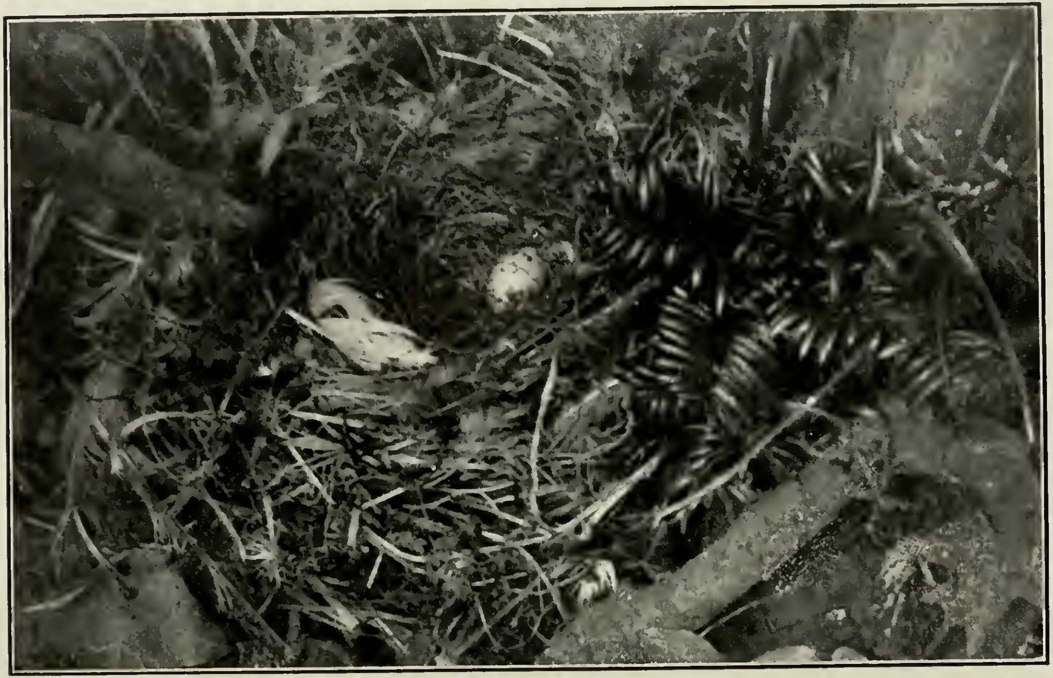

Photo by W. Shore Baily, F.Z.S.

Nest and Egg of *Geocichla litsibirupa.*

Notes on Jungle and other Wild Life.

By Dr. Casey A. Wood, M.B.O.U.

(*Continued from page 218*).

It is, of course, a great temptation to talk about the wonderful *orchids of the Guianas*, but who am I to discuss, even in the haphazard fashion of this informal letter a subject that has been treated many times by a dozen competent botanists? For example, Rodway (*Timehri*, Vol. VIII., 1894, p. 1-270) nearly thirty years ago described in his interesting fashion about 300 varieties.

Since that date possibly a hundred new species have been identified and described. Of these 400 species I have seen in the jungle, botanic gardens and elsewhere, about 50 varieties in bloom and 100 more flowerless; and have owned and become somewhat familiar with about thirty species. So you perceive how experienced an orchidist I am! However, I happen to know that few South American orchids are easily collected, and how many of them love to blush and bloom near the top of a giant fig or a tall Eta palm, practically inaccessible to the ordinary climber, even if he survives the onset of regiments of ferocious ants lying in wait to " eat 'em alive " who venture aloft. Moreover, the rootlets of these aerial plants, often intertwined with " bush ropes " or lianas, frequently harbour scorpions, tarantulas and centipedes that do not respect the feelings of an intruder. The rarest and most interesting are not, as a rule, found on the banks of accessible rivers and creeks, but are to be sought in the depths of the forest, in distant swamps and in the far interior, where the white man is seldom or never seen. It is, accordingly, to the Indian, the bush negro, and the boviander that one looks for the usual supply of these curious plants.

They are brought to Georgetown and generally find a ready purchaser.

I started an orchid garden at the Zoological Station last year, but soon exhausted the local supply, so far as species was concerned. I also found that the natives brought in of other varieties plants that were fated to bloom " next month." The majority of these grew and flourished *as plants*, but forgot to burst into flower at the appointed date. However, I took much pleasure in watching my plants grow, in their various odd fashions, and had a good time with them. Most were epiphytes and, wired to an old stump or tree, or suspended in improvised containers from any overhead support, flourished exceedingly. A few grow honestly and in approved manner from a bed of sand; but these were regarded as rare.

Rodway has pointed out how often the species of a particular genus inhabit the different life-planes of the Guiana jungle. Take, for example, the genus *Casetum*, of which *C. discolor* is probably the oldest form. This pale, yellow-green variety, with its hood-like flowers, prefers sand-reefs and old charcoal pits. *C. macrocarpum* " has made a leap upward, and lodged itself in the lower branches of trees, often just above the surface of creek or swamp, while *C. longifolium* has got to the top of the Eta palm and settled under its crown."

After receiving in the neighbourhood of twenty bites for every plant at whose capture I assisted, I decided to collect no more until I was able to acquire by purchase something rich and rare in the orchid line. Finally the opportunity presented itself, and I now rest from my labours, because, outside one of E's windows, and securely fastened to the jalousie thereof is one of the most beautiful, if not an exceedingly rare specimen, of *Cattleya violacea superba* from the distant Rupununi. It bears, in addition to a number of buds of promise, five lovely rosy-purple flowers, each about five inches across and borne on the apex of a club-shaped bulb, the latter attended by two thick, rigid, shiny leaves. Even if we have no additional blooms, we rejoice in the present radiance of these glorious flowers, and when we leave the colony we shall present this rare plant to someone who will cherish its aristocratic loveliness and who will, I am sure, be rewarded by a renewal of its purple glory.

And now it is time to say farewell to both South America and to you; and if we three never meet again, I hope two of us had a good gossip about the " things that are."

CASEY A. WOOD.

P.S.—The normal human being delights in the experience of a " one-man " companionship of whatever sex or species. That is the reason for admiring the attachment of the soldier for his horse, of the hunter for his dog. He who goes through life without knowing the single purpose affection of a collie or an Airedale for his master has missed something. To be fully aware that some one animal believes in you " through and through " and, clinging to you alone, or to you before all others, hangs upon your words and lives upon your approval, not because you are wise, wealthy or beautiful, but simply because " you are you "—such unselfish devotion is mighty rare in this unhappy world, and is well worth living for.

This quality, best known among the canine race, is by no means confined to them; and you would be surprised to learn, if you have not studied the subject, how developed it is in many species of birds. It is marked in parrots, not only in the larger species—Amazons, African greys, Macaws, etc.,—but among many of the parrakeets, lorikeets, conures and others.

Numerous individuals of these highly intelligent birds have made faithful and acceptable companions for their human relatives.

Just why a parrot selects some particular man, woman or child as his " affinity " nobody exactly knows, except that domesticated birds generally carry out, as far as possible, the inherited, daily programme of their wild state. Being monogamous (parrots mate early and retain the same companion until death parts them), roosting, feeding, flying, and living their forest life, strictly paired; it appears that when tamed and debarred from mating with one of their own species they choose another, of the human race!

Happy is the bird who has really found a mate for whom his soul longs, and thrice unhappy if surrounded by uncongenial people who, knowing him not, have bought him merely on account of his beautiful plumage or his conversational powers without consideration of the all-important question " does he like me?"—not, do I like him?"

When I was at the N.Y. Zoological Station, Kartabo, last year, I was fortunate in making the acquaintance of another " one-man " bird, a fine, Indian-raised example of the Curassow *(Crax nigra)* or, as the Guiana natives call him, the Powee or Powis Bird, from his plaintive call of *powee-powee*. He had a beautiful, black, iridescent mantle, white, downy underparts, and a highly ornamental, curly crest; and was about the size of a small turkey.

Under the name "Craxy," he roamed at will about the Station. We became great friends, and eventually he would allow none but me to touch him. We often took walks together and afforded much amusement to my associates when they saw this bird, with dignified gait and an apparent sense of his importance, strutting along a jungle trail with his solitary human companion. As night came on he always waited about until I was ready to accompany him, a hundred yards away, to his favourite roosting tree—an immense wild fig that overhung the Cuyuni River—at the very top of which, perhaps forty yards from the ground, he spent the night. Arriving at the tree, he slowly climbed and flew from limb to limb until I lost him from view amid the thick foliage and in the fast falling shades of the tropical night. At daybreak Craxy was wont to fly from his tree, as straight as he could, to my tent, but, I fear, not always making a good shot of it. At least I was several times accosted at breakfast with a remark like this: "That confounded bird of yours landed on my tent early this morning and woke me out of a sound sleep; the next time he does it ———." Of course I apologised and explained that I, too, was waked by a chorus of *powee-powee's* that did not cease until I rose and, pyjama-clad, led the hungry bird around to the cook and begged some favourite scraps for his breakfast.

During the day Craxy lived around the Station, occasionally visiting the laboratory, from which he was often ignominiously expelled by some investigator whose "material" he had examined for the purpose of deciding whether it was edible or not. Otherwise his time was largely occupied in the useful work of exterminating grasshoppers and other insects. At length the time arrived for me to leave Kartabo and for Craxy to be sent to the Bronx Park, for which he was originally slated, and as only I could do it easily I had to commit the crime of caging this free bird. Oh! how I hated the job! It was no trick at all to lure him into the wire enclosure provided for birds awaiting transportation, and then to close the door as I emerged, but "alas ,the silence in the trees"! The outraged bird would not even look at me next day, and would not come at my call. I did not blame him, for had I not deserted and betrayed him? However, the day before I left we were, I think, entirely reconciled, and I forgiven. During the night I visited him in his cage, calling softly, "powee-powee-powee." He came over, put out his lovely crested head and allowed himself to be caressed as in the old days. And now I am wondering if Craxy will recognise me when I visit him at the Bronx next month?

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Nesting of the Cape Turtle Dove.

(Turtur capicola).

By Wesley T. Page, F.Z.S., M.B.O.U.

(Continued from page 234).

Quite early in the present year I noticed the male courting the female, and driving her about considerably; a little later I noticed them together searching the different quarters of the aviary, evidently prospecting for a nest-site; still later I saw them carrying small sticks about, but they were very secretive, though I know one or two abortive attempts were made to construct a nest; then I missed one of the birds and concluded that incubation had begun—pressure on my time kept me from searching for the nest for fully a fortnight. When the opportunity came I took a good look round for their nest, and at last I found it and then discovered that I had been passing it closely daily as I went in to the shelter to renew food supplies; it was about twelve inches above the height of my head. A slight rustling drew my attention to it. A roof-standard, 10ft. high, supporting the front of roof of covered part of flight, was encircled by a dense mass (about 12ins. through) of Polygonum creeper, at the height of 7ft., where the nest was placed, the creeper had been trodden flat and thereupon had been constructed quite a substantial nest for a dove; the growth of creeper was much thinner above the nest, but sufficiently thick to conceal it effectually—the creeper grew thruogh the roof netting and formed a dense cone above it, leaving it well-sheltered as well as well-concealed; but for the movement of the birds I should not have discovered it. A look into the nest revealed two half-developed squabs, an ugly mass of pen feathers; a week later they left the nest, fully fledged, robust, but of weak flight. They spent two or three days upon the ground, mostly in the shelter, where I saw their parents feed them several times. On the fourth day after their exit from the nest they were flying strongly and followed their parents where'er they went.

From subsequent nests I gleaned that the incubation period was fourteen days, and that the young left the nest on the fourteenth to sixteenth day after hatching.

In all at least four clutches of eggs were laid, the same nest being used on each occasion. The eggs were white and almost as round as a marble, smallish for the size of the bird. Six young birds have been fully reared.

These are handsome doves for the mixed aviary, of graceful contour and pleasing colouration, amiable with other birds, non-interfering in every respect, yet quite able to keep all comers from intruding upon the nest.

So far as I know the young never went near the nest once they had flown, at any rate I never saw them.

As soon as the adult hen was nesting again, the young were forsaken by both parents and had to look entirely after themselves, proving to be quite as amiable as their parents, yet fully able to take their own part—there were five other species of doves in the aviary, some of them the reverse of amiable, but all the young which left the nest (six in all) have survived.

Post Mortems for the Month.

For Rules *vide* page *ii. of Cover.*

12 : 10 : 22. White Java Sparrow (♀): from T. O. Harrison, Esq., Sunderland.—Acute inflammation of oviduct and cloaca; a soft-shelled egg was present. The bird was otherwise in good condition.

16 : 10 : 22. Orange Weaver (Male): from Mrs. Alice Chatterton, Ruislip.—The bird was excessively fat, with fatty degeneration of the liver, and a terminal bronchitis.

20 : 10 : 22. Mealy Rosella (Male): from T. Goodwin, Esq., London, S.E.—The bird was very thin and wasted, with an acute Catarrhal enteritis.

October 31st, 1922. C. H. HICKS.

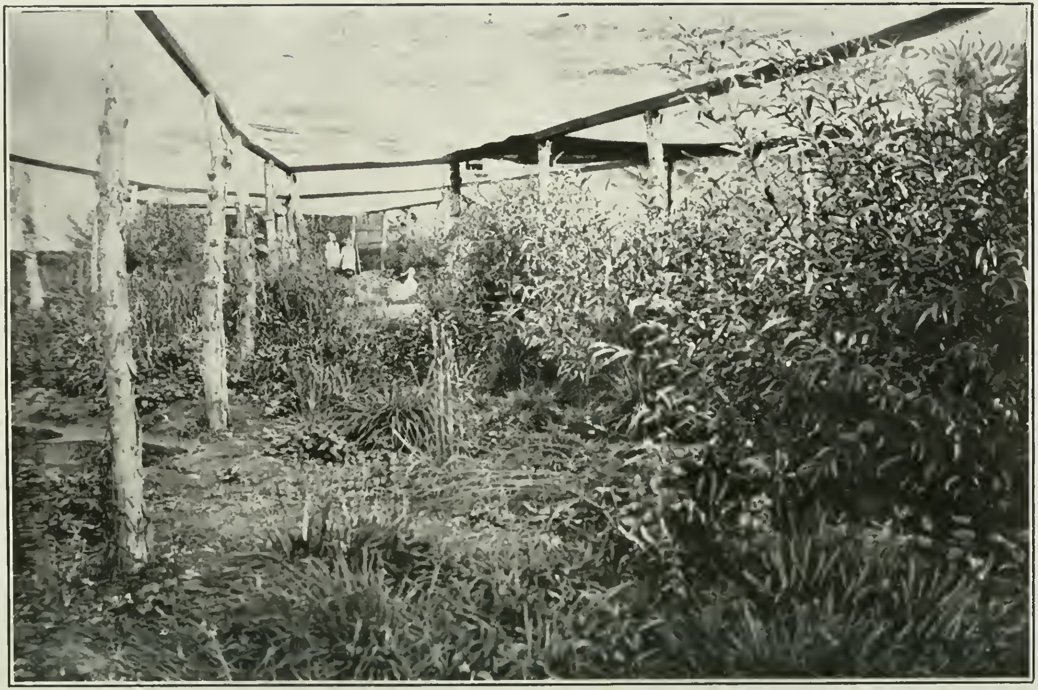

Photo by W. Shore Baily, F.Z.S.

Waders' Aviary.

Behind the children is a pond 30ft. in circumference, and beyond that an open shelter where the Spoonbills, Ibis, Pheasants, etc., roost at night.—W.S.B.

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BIRD NOTES:

— THE —

JOURNAL OF THE FOREIGN BIRD CLUB.

Visits to Members' Aviaries.

By Wesley T. Page, F.Z.S., M.B.O.U.

(Concluded from page 250).

Note: Plate "In Weavers' Aviary," facing page 251, *should face page 250.*

CORRIGENDA: Page 227 line 16 for "*roseicapilla*" read *roseicollis;* page 248, lines 12 and 26, and page 249, line 14, for "*Fringilla*" read *Fringillaria.*

The Waders' Aviary: This is a really extensive and beautiful enclosure, a pond at either end, the top one being, except in the centre, a dense mass of reeds and rushes, and the lower one with a large patch of sea-gravel in front of it, while down one side of the aviary meandered a shallow streamlet, its margins being studded with reeds, flags and other bog plants, and, in the writer's opinion, the whole formed an ideal home for Waders and Marsh-birds. Some idea of its beauty, practical character, and extent is indicated in the photo-plate illustrating these notes.

Wandering about, or on the wing, apparently quite at home in their quarters, I noted the following species:

Spoonbills (*Platalea leucorodia*)
Scarlet Ibis (*Eudocimus ruber*).
Bar-tail Godwit (*Limosa lapponica*).
Grey Plover (*Squatarola helvetica*).
Knots (*Tringa canutus*).
Dunlin (*T. alpina*).
Ruffs and Reeves (*Machetes pugnax*).
Peacock Pheasants (*Polyplectron chinquis*).
Common Quail (*Coturnix communis*).
Hybrid Senegal-Necklace Doves.
Misto Sees-Finches (*Sycalis luteiventris*).

Stripe-headed Grosbeaks (*Poliospiza gularis*).
Twites (*Linota flavirostris*).
Grey-headed Sparrows (*Passer diffusus*).
Red-headed Bunting (*Emberiza luteola*)
Java Sparrows (*Munia oryzivora*).
Russ' Weaver (*Quelea russi*).
Mistle-Thrush (*Turdus viscivorus*).
Ring Ouzels (*T. torquatus*).
Shore Larks (*Otocorys alpestris*).
Cabot's Tragopan (*Tragopan caboti*).
White-breasted Water-Hen (*Amaurornis phoenicura*).

All the roof supports, few silver poplar but mostly willow, have grown and make excellent cover and nesting sites for the passerine species. I fain would describe, if I could, the shallow stream running down one side of the aviary, starting just to the left of the reed-bed pond at the top of, and disappearing at the bottom end of the aviary, amid the sea-gravel, finding its way, of course, into the small lake-like pond of open-water, which adjoins (meets) the sea-gravel and has a background of reeds and other herbage, while stretching away on the right is a stretch of reedy, flaggy, weedy growth, and amid this I watched the waders pass to and fro—while many (most of them) are resident species; how seldom we see them, and how they differ in form and deportment from the more in evidence British species.

There were other Rails (Water-Hens) in the aviary, but I only caught a momentary glimpse of the White-breasted Water-Hen (an Indian species which, I think, Mr. Shore Baily got from me); they had an ample cover, and appeared and disappeared as easily as does the English Moorhen at home on its native heath. I have no note of the other species, as I only listed what I saw.

Even now I've not described that streamlet running the entire length of the aviary, save to state where it began and ran to. It was a running length of open and cover on one side the streamlet or the other; here a small clump of willows, their leaves flicking the surface of the stream (not much water there though), there a bunch of reed, now a series of flags, and water dock does the needful, both for picturesque effect and practical purpose. The birds certainly did wade and bathe here, passerines as well as waders—what a foraging ground it was for

Photo by W. Shore Baily, F.Z.S.

Spoonbills in Mr. Shore Baily's Waders' Aviary.

all of them, and what an amount of *meaty* food they gained therefrom my eyes had abundant evidence.

In this, though a waders' aviary, Misto Seed-finches, Grey-headed Sparrows, Twites, Quail, etc., have nested and successfully reared their young, but, so far as the writer is aware none of the waders have nested up to the present—undoubtedly this is a pleasant experience for the future, for, with such accommodation, it is sure to come.

It is beyond me to describe the internal natural beauty of this aviary, but the photo-reproduction will give some idea of part of it—it would need at least half a dozen photos to effectively figure the whole, and these would require to be in colour if they were to tell the whole story.

THE LAKE: A nice photo of this picturesque piece of water appeared in a back vol. of BIRD NOTES, when it was well stocked; now it is very different; the beauty of the spot remains, but the fine wealth of water-fowl is no more, for during the war the foxes broke through the fences, and all that are left of this large flock of water-fowl are a comparatively few, mostly old birds, as under:

Pair Rosy-billed Ducks (*Metopiana preposaca*).
pair Chiloe Wigeon (*Mareca sibilatrix*).
2 Chilian Teal (*Nettium flavirostris*). Both drakes.
♂ Yellow-billed Duck (*Anas undulata*).
♂ Red-headed Pochard (*Nyroca ferina*).
Pair Common Wigeon (*Mareca penelope*).
♂ Upland Goose (*Chloephaga magellanica*).
Some Chiloe Wigeon hybrids, Moorhens, and 2 Common Ducks.

Still, amid the quietude of the late afternoon and the beauty of the scene, they made a brave and interesting picture. There was plenty to attract and interest, for, now they were sailing buoyantly on the surface of the water, now beneath it with the onlooker expectantly watching for their re-appearance, and anon in the air above it—as it were as a whole seeing them indulge in almost every form of exercise and activity under the sun. But, I fain would have had to write of re-production processes—stop, this was not entirely absent, for in a coop on the lawn were a brood of some half-dozen healthy young Rosy-billed ducklings, only a few days old but promising well.

THE PADDOCKS: These adjoined the Waders' aviary and consisted of a meadow partitioned off into the three paddock enclosures, a stream crossed the left side of meadow with a paddock on either side of it. In the far one were fine pairs of Demosille Cranes (*Anthrapoides virgo*) and Horned Guinea Fowl in the very pink of condition.

In the next were pairs of Lesser Adjutant Storks (*Leptoptilus javanicus*), Black-winged Peafowl (*Pavo muticus*), and Upland Geese (*Chloephaga magellanica*).

The peafowl were simply gorgeous, and a nice little troupe of their progeny were picking up a living, on their own, on the tennis lawn.

I must have a word *en passant* about the Adjutant Storks, which were one of my private importations, and which I much regretted not having the space to retain myself—I had a small paddock, 30-40 yards square, I could have given them, but there was no pond, so I let them most reluctantly, depart for Boyers House, where they have done well, being now in full adult plumage and looking " very fine and handsome " in spite of their vulterine bald heads and necks; their plumage was spotless, and their colouration beautiful blue-grey, black and white—they are to be found (seen) in every mood from gay to solemn, the sublime to the ridiculous, as also in every posture from dignity to the comic-ridiculous—at one moment advancing with slow step, dignified and solemn mein, the next dancing for all they are worth as if to a full jazz orchestra! But enough, instead of writing prose, one needs the pencil of a lightning caricturist, then one could adequately tell their true story, pages long, in comic pictures! " Not Solomon in all his glory was arrayed like one of these."

Truly, he was not!

The last paddock contained one of the finest pairs of Upland Geese I have ever seen, and six young Pheasants (*Phasianus colchicus*).

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Exhibiting Foreign Birds.

TORQUAY FUR AND FEATHER SHOW.

5th and 6th December, 1922.

By Capt. G. E. Rattigan, F.Z.S.

Foreign Bird Section. *Judge—Mr. C. House.*

I am sending a few notes on the Foreign Bird Section of the above show in the hope that it may be of interest to some of the readers of "B.N.," more especially to former exhibitors. It is to be hoped that the interest of former years in foreign bird exhibiting may once again be aroused, and that in the near future our shows will even eclipse the wonderful displays of foreign species seen in pre-war days. It is not everyone, unhappily, who can afford to purchase the wonderful and rare species which from time to time find their way over to this country. To the vast majority then, a bird show affords the only possible chance of seeing such glories of nature in the flesh. A really good display of foreign birds is an education in itself, and a source of the keenest delight to masses of the general public. Moreover, it gives birth to a desire in many a visitor to such a show to himself or herself possess some of the fairy-like creatures exhibited. A real and wide interest in Foreign Bird Keeping is thus awakened which, in turn, means many more potential members for the "F.B.C." an end towards which it is obviously both the duty and to the interest of us all to strive. The main objection to sending foreign birds to shows is the, unhappily, very real danger involved of losing them through the carelessness, or lack of knowledge as to the proper treatment needed by their charges, of the stewards concerned. I have myself suffered severely in the past, so am well aware of the risk one runs under such conditions, a risk I should certainly not care to incur again. But, granted good and efficient stewards who are genuinely devoted to the interests of their charges, and all risk is practically eliminated, for I have never found that birds suffer to any extent on a rail journey, however long, providing, of course, that they have been properly packed for travelling, and water dishes and sticky food, etc., removed or properly confined. Granted such conditions I always think that a person who still refuses to allow his birds to be exhibited, must have much of the miser in his make-up, preferring to selfishly gloat over his avian treasures to sharing his joy at their living beauty with others. Where a competent person is known to be in entire charge of the exhibits therefore, keepers of rare and even of the common, though often none the less beautiful, species should have no hesitation in sending of their best, and, as I have already indicated, by such public-spirited action our society cannot fail to be immensely benefited. Would it not be possible for experienced members of the F.B.C. in different parts of the country to undertake such duties at their various centres? I for one would have no hesitation in sending valuable birds to a show where they would be under the guaranteed and personal supervision of an experienced aviculturist. To set the ball rolling I guaranteed six classes at the recent Torquay show. To our members Mrs. Burgess and the Marquis of Tavistock my grateful thanks are due for their public-spirited action in sending such lovely and rare examples of their famous collections, and, it is very largely through their generous support that this section of the exhibition proved the great success it was. The one solitary fly in the ointment was that the task of deciding upon the merits of the rarities exhibited proved, unhappily, beyond the capacity of the judge. I will now briefly discuss the different classes in order of classification:—

CLASS 227. BUDGERIGARS—All Colours (7).

1st and Special, Mrs. Burgess: A really fine pair Blues, wonderful size, colour, and markings. One of the best pairs I have seen, and in faultless condition.

2nd, Mrs. Burgess: Pair Yellows of a deep, rich colour.

3rd, Miss Blackburn: Quite the finest pair of Greens I have ever seen, in the most perfect condition. Although pure Greens, several people mistook these birds for Blue-breds, because they showed considerable areas of blue. They were exceptionally large birds, and their feathers shone with the bloom of health. A real credit to their very enthusiastic and sporting owner.

V.H.C.; H.C.; and C., Mrs. Burgess, with good examples of the Jade (sea-green), Olive and Cream varieties. The latter was new to me. A very charming display of the various colour varieties, and a very popular exhibit with the public. There were quite twenty enquiries for the Blues, but the present high price of these birds places them beyond the reach of most people.

CLASS 228. PARROTS, COCKATOOS, AND MACAWS (7).

1 and sp., Mrs. Burgess: A fine cock Eclectus Parrot, a most striking and beautiful bird, though, for a parrot of sober garb, being a vivid, metallic green of various shades, the primaries being dark blue, and the sides and inner wing-coverts scarlet. The female of this species is a truly splendid creature arrayed in a garment of crimson velvet with a broad band of purplish blue upon the breast.

2, The Marquis of Tavistock: A fine hen Gang-Gang Cockatoo.

3, The Marquis of Tavistock: A lovely cock Gang-Gang. A very attractive bird and, I should imagine, a most charming and intelligent pet. It appeared to take a great interest in the proceedings, and was a great favourite with the public, though it was at the same time treated with the respect that its somewhat formidable appearance inspired. The two birds formed an interesting contrast, the hen being of a dusky grey colour, each feather edged with lighter grey; whilst the cock is resplendent with the whole of the head and crest a brilliant scarlet. The crest is strangely reminiscent in shape of the ancient Roman Helmet. Of these two birds the hen is decidedly the larger, but I am unable to say whether such difference in size is a constant feature. Whether the decision of the judge was influenced by this circumstance I do not know, but I could discover no other explanation as to why he placed the hen in front of the cock, as both birds were in the same faultless condition, and from the above it will be easily apparent that the cock is a very much more striking and attractively coloured bird than its mate. One derives a certain amount of quiet amusement from the comments of certain "know-all" members of the public. The birds under discussion, for instance, were described by a lady visitor as being so common in New South Wales *(sic)* that no one out there would dream of taking the trouble to cage one!!

Reserve, Mrs. Burgess: A nice example of the Bare-Eye Cockatoo.

V.H.C., Mrs. Burgess: A Vasa Parrot in fine form but not, in my humble opinion, a very attractive looking species.

Reserve in this class originally fell to a hen Alexandrine Parrakeet, an amazing decision indeed from every point of view. Being entered in the wrong class, this placing was subsequently set aside.

CLASS 229. PARRAKEETS INCLUDING LOVEBIRDS '

1 and Sp., Mrs. Curry: A charming specimen of the Blossom-headed Parrakeet, put down' in the best possible condition, but an extremely lucky winner in such exalted company. I may add that the placings throughout this class were utterly incomprehensible to me. One can only suppose that the judge, not being familiar with the species before him, was forced to make random selections; but even so, he was unlucky, for almost any other combination he might have chanced upon would have given better results than the one actually adopted.

2, Mrs. Burgess: A magnificent Crimson-wing Parrakeet, and, like almost all this lady's exhibits, in the most perfect exhibition condition. The healthy appearance of these birds, and indeed of all the exhibits, was a real joy to behold, and spoke volumes for the aforethought and care lavished upon them by their owners.

3, Mrs. Burgess: A nice Adelaide, but very nervous at first. It became much more at home on the second day.

V.H.C., Mrs. Burgess: BARRABAND'S PARRAKEET: A really lovely exhibit in the most exquisite condition. Not a feather ruffled, and carrying a sheen and gloss upon its plumage which I can only liken to that a well groomed thoroughbred carries on its coat. Would have been hard to beat in any company, and should, without peradventure, have occupied one of the premier positions here.

V.H.C., Lord Tavistock: QUEEN ALEXANDRA PARRAKEET: A delightful exhibit, and, like the Layard's mentioned below, a beautiful blend of softly harmonising colours seldom met with in this family of birds. Unhappily it looked very "soft" on arrival and during the judging, and persisted in crouching at the bottom of its cage with its head thrust into the farthest corner. This, of course, seriously compromised its chances. Later it seemed to grow even worse and sat with its head under its wing, and feathers all puffed out. I believe now that it was merely suffering from a bad attack of nerves. However, this may have been, I was seriously alarmed at the time and in desperation flung in a handful of mealworms. It began to nibble these at once, and in about half an hour, to my utmost relief, was as lively as could be, and upon its perch looking out eagerly for a further supply. Curiously enough all its former shyness now completely vanished and it took mealworms from my fingers without the least hesitation. One could only wish that it had been judged as it appeared throughout the second day of the show.

Also in this class were fine Red-rump and Pennant Parrakeets, but these, of course, were altogether outclassed here. The bird occupying the last and only cardless position was a Layard's Parrakeet, the property of Lord Tavistock, and a native, the owner informs me, of Ceylon. This bird was probably the rarest one present, and, so far as I can ascertain, has seldom appeared on the show bench. This bird, like the Barraband, was an example of the pitch of perfection to which a cage bird can be brought by care and skilful management. Coloured in the softest shades of purple and green it is a bird of real beauty, carrying a sheen on its plumage comparable to a ripe peach. Apart from its rarity the bird merited the highest commendation, both for its superb condition and for the wondrous harmony of its softly blended colouration. How it failed so utterly to catch the judge's eye on this occasion is one of those things no fellow can understand.

CLASS 230. WHYDAHS, JAVA SPARROWS ANT OTHER COMMON, NAMED SPECIES (15).

1 and 2 Specials, Mrs. Burgess: A nice pair of Cordon Bleus, but the hen had lost a few feathers off its crown during the journey, and they were, I think, for this reason if no other, lucky to win here.

2 and Sp., Capt. Rattigan: A nice Pin-tail Whydah in exhibition condition.

3, Mrs. C. J. Shey: A very fine Orange Bishop. Mrs. Shey is a famous exhibitor of pre-war days, and this bird amply demonstrated that her hand had lost none of its old cunning.

No Reserve appears to have been awarded in this class, though the largest.

V.H.C., Mrs. Curry, Mrs. Shey, and Capt. Rattigan with Cordon Bleus (hen bare on head), a Cordon Bleu, and Paradise Whydah respectively. A perfect pair Fire Finches and lovely pair Green Avadavats signally failed to attract the judge, though these might with advantage have occupied the two premier positions.

CLASS 231. ANY OTHER SPECIES SEEDEATER.

1 and 2 Specials, Capt. Rattigan: A fine pair Violet-eared Waxbills.

2, Capt. Rattigan: An excellent pair Masked Grassfinches. Very steady.

3, Capt. Rattigan: Perfect pair Long-tailed Grassfinches, but unsteady.

Res., Mrs. Burgess: A purplish-blue tinted finch unknown to me. A trifle rough or should have stood at the top of the class. Perhaps the owner will be kind enough to furnish a few details concerning this bird. V.H.C.: A very fine Black-headed Grosbeak. This bird is almost an exact replica, as regards the distribution of its colours, of our bramblefinch. Should have stood much higher.

Also exhibited: Pairs of Cuban Finches, Rufus-backed Mannikins, and a fine Red-crested Finch exhibited by Mrs. Burgess; the latter bird was in faultless condition and very steady. In my opinion it should have won, but was obviously unknown to the judge.

CLASS 232. TANAGERS, SUGAR AND SUN BIRDS, FRUIT PIGEONS, AND A.O.V. INSECTIVOROUS (7).

1 and 2 Specials, also Special for Best Cage Bird, Capt. Rattigan: A Superb Tanager, and, although I say it who shouldn't, the finest both in regard to size, colour and condition I have ever come across. I honestly think it well deserved

its position in the class, though the special for best cage bird ought to have been bestowed elsewhere.

2, Capt. Rattigan: A very fine Shama.

3, Mrs. Burgess: A lovely Green Sugarbird. A most charming and attractive exhibit, again in faultless condition. There seem to be many different species of Green Sugarbirds, which differ considerably both in size, shape and colour. This was one of the large forms and of a dark green colour.

V.H.C., Mrs Burgess: Pileated Jay: A truly magnificent bird, clothed in a garment of turquoise-blue, black, purple and white plush. Attracted a tremendous lot of attention. One of the earlier visitors indeed is said to have described it as one of the Birds of Paradise! After this I thought perhaps it would add to the interest of the exhibits to have them all labelled, and my wife very kindly wrote out the names of each on large slips of paper, which I had affixed to the top of the cages. Also in this class: Lilac-crowned Fruit-Pigeon and Amethyst Starling.

In conclusion I may add that this magnificent array of rare foreign birds proved of the greatest attraction to the public, few of whom had seen anything approaching such a display of avian beauty. There can be little doubt that such a collection of wonderful birds has never before been benched in the West if England, and I once again tender my sincerest thanks to all who helped to make this exhibition such a splendid success. Next year we hope with the kindly aid of members of the F.B.C. to do even better, and, seeing that all being well, our esteemed Editor has most kindly consented to officiate. Exhibitors can safely count upon their birds receiving their deserts.

Just as I lay aside my pen I learn that all the above exhibits reached their destinations safely.

Records of Birds which have Bred in Captivity.

By Dr. E. Hopkinson, D.S.O., M.A., M.B., F.Z.S., etc.

(Continued from page 221).

LIST 2.

Records of Birds which have been bred in captivity which require fuller details.

GREENFINCH.
Hybrids.
GREENFINCH × JAPANESE GREENFINCH. Vale. Page.
× CHAFFINCH. Page.
× BULLFINCH. Vale. Page.
× CANARY. Vale. Page.

CHINESE GREENFINCH.
Hybrids.
CHINESE G. × GREENFINCH. Page.
(" Siberian " G. in Page's list ; obviously a slip).

BLACK-TAILED HAWFINCH, *Eophona melanura.*
Abroad, teste Russ.
Have only records of partial success in the British Isles.

HAWFINCH.
Hybrids.
HAWFINCH × BULLFINCH (?) Longdon, 1916. See BIRD NOTES, 1917, 39.

RED CARDINAL.
Hybrids.
RED CARDINAL × GREEN CARDINAL. Page.

GOLDFINCH.
Hybrids (E).
GOLDFINCH × GREENFINCH. Vale. Page.
× JAPANESE GREENFINCH. Vale.
× CHAFFINCH. Vale.
× SISKIN. Vale. Page.
× LINNET. Vale. Page.
× REDPOLL. Vale. Page.
× CANARY. Vale. Page.
× BULLFINCH. Page.

SISKIN. Page.
Hybrids (E).
SISKIN × GREENFINCH. Vale. Page.
× GOLDFINCH. Vale. Page.
× TWITE. Page.
× LINNET. Vale. Page.
× SULPHUR SEEDEATER. Page.
× ST. HELENA SEEDEATER. Page.
(E) See P.S. (E) p. 173 above.

CITRIL FINCH.
Hybrids.
CITRIL × CANARY. " in evidence at the S. Kensington Museum
Vale.

BLACK-HEADED SISKIN. *Spinus ictericus.*
Hybrids.
BLACK-HEADED S. × CANARY. Page. (See P.S. (F) p. 173 above).
× CAPE CANARY. Page. (This entry in Page's list almost certainly refers to Russ' " Schwarzkopfige Zeisig × . . . ." This is the German name of the ALARIO. The same may also apply to the preceding entry and therefore invalidate it as well).

AMERICAN SISKIN.
Hybrids.
AMERICAN S. × CANARY. Page.

HIMALAYAN SISKIN (or GREENFINCH). *Hypacanthis spinoides.*

SIKHIM SISKIN. *Spinus tibetanus.*
? if the breeding records of these two species are not confused).

TWITE. Page.
TWITE × GREENFINCH. Vale. Page.
× GOLDFINCH. Page.
× SISKIN. Vale. Page.
× CANARY. Vale. Page.

LINNET. Page.
Hybrids.
LINNET × GREENFINCH. Vale. Page.
× GOLDFINCH. Vale. Page.
× TWITE. Vale. Page.
× GREY SINGING FINCH. Page.
× CANARY. Vale. Page.
× BULLFINCH. Vale. Page.
× CUTTHROAT. *Amadina fasciata.* (PLOCEIDAE!)
RECORD.- Croker, 1914. B.N. 1915, 261.
(See P.S. (G), p. 173 above).

MEALY REDPOLL.
Hybrids.
MEALY R. × CANARY. Vale. Page.
× BULLFINCH. Vale.

REDPOLL. Page.* The only attempt at a record I can find is A.M. iii. 331.
Hybrids.
REDPOLL × GREENFINCH. Vale. Page.
× GOLDFINCH. Page.
× SISKIN. Vale. Page.
× LINNET. Vale.
× CANARY. Vale. Page.
× BULLFINCH. Vale. Page.
* I successfully bred this species myself in 1915.—W. T. Page

TREE SPARROW. Page.
Hybrids.
TREE SPARROW × HOUSE S. Vale. Page.
× YELLOW S. Page.

HOUSE SPARROW. Page.
Hybrids.
HOUSE SPARROW × TREE SPARROW. Page.
× YELLOW SPARROW. Abroad, teste Russ, and see P.S. (H), p. 173 above.

GOLDEN SPARROW. *Passer euchlorus.* Abroad by Russ, teste Russ

ALARIO FINCH.
Hybrids.
ALARIO × GREY SINGING FINCH. Page.
× CAPE CANARY. Abroad, teste Page.

ANGOLA SINGING FINCH. *Poliospiza angolensis.*
Hybrids.
ANGOLA S. F. × CANARY. S. Africa. See B.N. 1920. 71. (breeder not named).
× CAPE CANARY. Abroad, teste Russ.

GREY SINGING FINCH. *P. leucopygia.*
Hybrids.
GREY S. F. × GREEN S.F. Page.
× CANARY. Vale. Page.
× LINNET. Vale. Page.

CAPE CANARY. *Serinus canicollis.* Can find no record. See P.S. (I), page 173 above.
Hybrids.
CAPE CANARY × ALARIO. A.M. (n.s.) iv. 134, but ? this way or *vice-versa.* Abroad, teste Page.

SULPHUR SEEDEATER.
Hybrids.
SULPHUR S. × CANARY. Page.

ST HELENA SEEDEATER.
Hybrids.
ST. HELENA S. × GREY SINGING FINCH. Page.
× SAFFRON FINCH. Page.

GREEN SINGING FINCH. Page. "easily bred (abroad): first breeder Russ," teste Russ.
Hybrids.
GREEN S. F. × SISKIN. Page.
× ALARIO. Page.
× GREY S. F. Page.
× CANARY. Vale. Page.

SERIN FINCH.. Page. See also A.M. iv. 14.
Hybrids.
SERIN × GREEN SINGING FINCH. Page.
× CANARY. Vale. Page.

CANARY. Many of the hybrid records need amplification.

SAFFRON FINCH. *Sycalis flaveola.*
Hybrids.
SAFFRON F. × ST. HELENA SEEDEATER. Page.
× CANARY. Page.

YELLOWISH FINCH. *Sycalis arvensis.* Page.

SCARLET ROSEFINCH. *Carpodacus erythrinus.*
Hybrids.
SCARLET ROSEFINCH × CANARY. Vale (abroad).
"mentioned authoritatively by Dr. Russ, writes Dr. A. G. Butler." Vale in a footnote to his list.

PURPLE FINCH.
Hybrids.
PURPLE FINCH × CANARY. Vale. Page.

MEXICAN ROSEFINCH.
Hybrids.
MEXICAN ROSEFINCH × CANARY. Page.

BULLFINCH.
Hybrids.
BULLFINCH X CANARY. Vale. Page.

REED BUNTING.
Hybrids.
REED B. × YELLOW B. Vale.

BLACK-CRESTED BUNTING. *Melophus melanicterus.* Only a record of incomplete success. De Quincey. See B.N. 1915, 261.

INDIGO BUNTING.
Hybrids.
INDIGO BUNTING × CANARY. Page. Vale.

POPE CARDINAL. *Paroaria larvata.*
Hybrids.
POPE × RED-CRESTED CARDINAL. Page.

PLOCEIDAE.

PARADISE WHYDAH. Abroad, teste A. G. Butler & Page.

RED-BILLED WEAVER. *Quelea quelea.* Page.

FIREFINCH. *Lagonosticta senegala.*
Hybrids.
FIREFINCH × GREY WAXBILL. Abroad, teste Page.
× LAVENDER WAXBILL. Abroad, teste Page. "uncertain which way," Butler, A.M. n.s. iv, 350.
× ZEBRA WAXBILL. Abroad, teste Page. Butler, as above.

ROSY BLACK-BELLIED FIREFINCH. *L. rhodoparia.* ? does Russ' note (i. p. 67) "a new 'rother Astrild'" refer to this species?

CUTTHROAT.
Hybrids.
CUTTHROAT × JAVA SPARROW. Abroad, teste Page.

RED-HEADED FINCH.
Hybrids.
RED-HEADED FINCH × CUTTHROAT. Page. Russ.
× JAVA SP. (WHITE). Page.

ZEBRA WAXBILL. *S. subflavus.* Russ. Page.
Hybrids.
ZEBRA W. × FIREFINCH. Abroad, teste Page.
× GREY WAXBILL. Ditto.
× AVADAVAT. Page. Russ. See P.S. (J), p. 173 above

ORANGE-CHEEK WAXBILL. *S. melpodus.*
Hybrids.
ORANGE-CHEEK W. × ST. HELENA W. Abroad, teste Russ & Page.
× GREY WAXBILL. Ditto.

MAJA FINCH. *Munia maja.* Abroad Page and Russ.
Hybrids.
MAJA × CUTTHROAT. Page.
× STRIATED FINCH. Page. (probably = × Bengali).
× CHOCOLATE MANNIKIN. Page (abroad).
× CHESTNUT FINCH Page (abroad).

× PARSON FINCH. Page (abroad).
(these 4 also recorded A.M. n.s. iv. 352. A. G. Butler.)

CHOCOLATE MANNIKIN. *Munia atricapilla.*
Hybrids.
CHOCOLATE M. × MAJA. Abroad, teste Russ & Page.

CHESTNUT FINCH. *M. castaneithorax.*
Hybrids.
CHESTNUT FINCH × MAJA. Abroad, teste Page.
× CHOCOLATE MANNIKIN. Abroad, teste Page.
× STRIATED FINCH. Abroad, teste Page.
× BENGALI. Abroad, teste Page. (See also Butler A.M. I, c).

NUTMEG FINCH. *M. punctulata.*
Hybrids.
NUTMEG × STRIATED FINCH. Abroad, teste Page (but ? = × Bengali).
× BRONZE MANNIKIN. Page.
× AFRICAN SILVERBILL. Page.

STRIATED FINCH. *Uroloncha striata.*
Hybrids.
STRIATED FINCH × CHESTNUT FINCH. Abroad, Page & Russ
× SHARP-TAILED F. Page.
× MAJA F. Abroad, Page & Russ.
× NUTMEG F. Abroad, Page & Russ.
× AFRICAN SILVERBILL. Abroad, Page & Russ.
× PARSON FINCH. Abroad, Page & Russ.

BENGALI. Some of the hybrid records need amplification.

SHARP-TAILED FINCH. *U. acuticauda.*
Hybrids.
SHARP-TAILED FINCH × STRIATED F. Page.
× AFRICAN SILVERBILL. Page.

CHERRY FINCH. *Aidemosyne modesta.*
Hybrids.
CHERRY FINCH × MASKED GRASSFINCH. Page.

INDIAN SILVERBILL. *A. malabarica.*
Hybrids.
INDIAN S. × BIB FINCH. Page.

AFRICAN SILVERBILL. *A. cantans.*
Hybrids.
AFRICAN S. × INDIAN S. Page. Russ. (? which way).
× JAVA SPARROW. Abroad, teste Page.
× ZEBRA FINCH. Abroad, teste Page.
× MAJA FINCH. Abroad, teste Page.
× STRIATED FINCH. Page.
× SYDNEY WAXBILL. Abroad, teste Page.
× GREY WAXBILL. Abroad, teste Page.
× ST. HELENA W. See Butler A.M. n.s. iv. p. 352, and for other Ploceid hybrids.

PARSON FINCH. *Poephila cincta.*

Hybrids.
PARSON F. × MAJA FINCH. Abroad, teste Page.

PARROT FINCH. *Erythrura psittacea.*
Hybrids.
PARROT F. × PEALE'S PARROT FINCH. Page.

CRIMSON FINCH. *Neochmia phaeton.*
Hybrids.
CRIMSON FINCH × LONG-TAILED GRASSFINCH. Abroad, teste Page.
× RUFOUS-TAILED GRASSF. Ditto.

ST. HELENA WAXBILL. The records all need amplification.

GREY WAXBILL
Hybrids.
GREY W. × ORANGE-CHEEK W. Abroad. teste Page.
× ST. HELENA W. Page.

LAVENDER WAXBILL.
Hybrids.
LAVENDER W. × FIREFINCH. Abroad, teste Page.
Uncertain which way.

CORDON BLEU.
Hybrids.
CORDON × ST. HELENA WAXBILL. Abroad, teste Page.

STURNIDAE.

COMMON STARLING. Page.

BROWN MYNA. *Aethiopsar fuscus.* Abroad, Berlin Zoo, teste Butler.

CRESTED MYNA. *Ae. cristatellus.* Weiner, teste Russ, but ? teste Dr. Butler.

GLOSSY STARLING. Records need confirmation and details.

CORVIDAE.

RAVEN. Page.

CARRION CROW. Hybrids. Vale. (? produced in captivity).

HOODED CROW.

JAY. Page.

MOTACILLIDAE.

WHITE WAGTAIL. Page.

GREY WAGTAIL. Page.
Hybrids.
GREY × YELLOW W. Page.
× PIED W. Page.

TREE PIPIT. Page.

ZOSTEROPIDAE.

NATAL WHITE-EYE (*Z. virens*) cross with CANARY (!) reported! See B.N. 1920, 71.

AMPELIDAE.

WAXWING. Incomplete. "young hatched twice in 1903," St Quintin, A.M. n.s. vii. 115.

SYLVIIDAE.

GARDEN WARBLER. Page.

TURDIDAE.

BLACKBIRD. Page.
Hybrids.
BLACKBIRD × GREY-WINGED OUZEL. Abroad, teste Page

MISSEL THRUSH. Page.

RING OUZEL. Page ("but doubtful if fully reared." Page).

SONG THRUSH. Page.

PYCNONOTIDAE.

RED-VENTED BULBUL. Page.

SYRIAN BULBUL. Abroad, teste Page.

MENURIDAE.

LYRE-BIRD. Said to have produced hybrids with the domestic fowl. Page. Foreign list.

ERRATA: Page 200, record 134, "P.S., A.P. above," read p. 172 above.
Page 202, record 156, "A. above," read p. 172 above.
Page 219, record 178, for "*Quiscalds*" read *Quiscalus*.
Page 219, record 176, "P.S., C.P. above," read p. 173 above.
Page 219, record 192, for "*Cyanopolins*, read *Cyanopolius*.

FINIS.

◆

Post Mortem Reports.

2:11:22. CANARY (♂); from Mrs. May S. Dennis, Market Drayton.—Double pneumonia.

4:11:22. RED-FACED LOVEBIRD (♀); from W. R. Bearby, West Hartlepool. Catarrhal enteritis, with a terminal congestion of lungs. (Answered by post).

23:11:22. NAPOLEAN WEAVER (♂); from T. O. Harrison, Sunderland.—Hæmorrhage from ruptured liver. (Answered by post).

29:11:22. WHITE JAVA SPARROW (♀); from Capt. H. S. Stokes, Rugeley, Staffs.—Double pneumonia. (Answered by post).

December 3, 1922. C. H. HICKS.

◆

Correspondence.

TO KEEP OWLS AND CATS FROM INJURING BIRDS.

SIR,—When I kept small birds I had the same difficulty with owls as Dr. Sprawson describes. I defeated them by stretching a double top of wire-netting over my open flights, leaving a foot between the two layers of netting. Owls and cats very quickly learnt that they could not reach the inmates, and left off trying from above. In addition, as I found small birds very fond of roosting close to the wires, I fastened a good thick bundle of heather to the *outside* of the aviary wherever a perch or bush was near the wires. This completely hid the bird from the owls, so that it could neither be frightened nor injured by them. After adopting this plan I never lost a bird from owls or cats. (Miss) E. F. CHAWNER.

BREEDING BULLFINCHES IN CAPTIVITY.

Sir,—" Re Breeding Bullfinches." I never found any difficulty in breeding them in a small aviary, with an open flight containing a few thuja trees. The nests were always built of heather twigs and lined with dried grass. The eggs were almost invariably fertile and the young fully reared with no assistance from me; in fact the more they were left to themselves the better they did. A good many other birds were in the same aviary, but I did not find that they interfered with the Bullfinches, except when a cock Pekin Robin, who had young close by, annoyed his neighbours by insisting on feeding their babies as well as his own.

(Miss) E. F. CHAWNER.

ENGLISH TICK KILLING BIRDS.

Sir,—Since my last communication on this matter I have had another letter from Mr. Kirby, as follows:

" I have had, perhaps, an unique experience of gaining information in " my profession, as my father and grandfather both followed the same " calling, and, I have a son who is making out to be a good student at the " same game. My profession has always been my hobby, so that I have " taken a great deal of notice of things which might have escaped anyone " less observant."

" My first experience of TICKS was when I was a boy, that brute I " got from a sheep's head—it bit me on the thigh, dad wanted to know " why I was so uneasy. After explanation he told me to go and examine " myself, and, I found the brute on my thigh, where it had dug itself " well in."

" The next one I found on the head of a Common Snipe, that, I remember, ' had been picked up alive. The bird was very badly bitten about the " head and eyes; the body was in a very bad and poor condition, as though " its tormentor had been on it some time."

" I also remember finding one on a Chaffinch—that was about five " years ago."

" The most remarkable was one I found on the head of a Mole, that had " been caught in a trap. The mole was in a poor state, with blood on " the head; same as the birds. How it got on the mole it is hard to say, " unless it had dropped on a mound made by the moles."

" If a tick once gets foothold he is a sticker . . . . they are perfect " demons. I shall be glad to answer any questions, as the subject interests " me greatly.—F. KIRBY, R.Z.S.I., Nov. 20, 1922."

Mr. Kirby recently had a Starling sent to him which had been killed by a TICK, and presented the same appearance as my finches on post mortem examination being made. The bird was picked up alive, and died soon after.

Havant, Nov. 23, 1922. (The Marquis of) TAVISTOCK.

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JANUARY 1922.

The Foreign Bird Club.

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HON. TREASURER: S. Williams, Oakleigh, 110 Riverway, Palmer's Green, London, N. 13.

For Committees and other Officers vide *February issue.*

◆

Notices to Members.

THE MAGAZINE: January issue, owing to revision of Roll, etc., is always late, but this issue is much later than usual, and for this the Editor is not disposed to apologise—the cause lies with the members, viz: shortage of "copy," and the remedy, as to future issue, it must be obvious, also lies with them.

It is a week later than need have been, but illness has made this unavoidable—some very late "copy" has been used, and has had to go through without any proof revision whatever.

ADVERTS.: Members are requested to note the alterations concerning these, especially Trade Adverts. Remittances should accompany all copy for adverts. or they cannot be inserted.

New Members We urge all to assist in increasing our Roll; the Club needs a larger membership, and there are many bird-keepers and aviculturists who know nothing about F.B.C. or its Journal Bird Notes. With our widely spread membership this defect should soon be removed. The Editor or Secretary will promptly send a specimen copy to any address sent them, and such candidate for membership as proposed by the member who sent in their name, or members can use one of their own copies as a specimen (it will be at once replaced upon application). A little united effort and our Roll should be nearly double its present strength by 1923.

WESLEY T. PAGE, *Hon. Editor.*
MAJ. A. E. SNAPE, *Hon. Business Secretary.*

◆

Deficit and Illustration Funds.

These two funds need all the help members can give them. The committee acknowledge with best thanks the following:

	£	s.	d.
Baily, W. Shore	0	10	0
Best, Cyril (o.p. sub.)	0	1	0
Cushney, C.	0	10	0
Pettigrew, C.	0	10	0
Sich, H. L.	1	0	0
Tavistock, The Marquis of	0	10	0

◆

Proposed for Election as Members.

Porter, J. W., c/o Commonwealth Trust Ltd., 35, Old Jewry, London, E.C. 2
By Capt. G. E. Rattigan.

◆

Register of Club Breeders.

* Indicates ability to supply as soon as young are old enough to be removed from their parents.

* Baily, W. Shore, Boyers House, Westbury, Wilts.
Rosella Parrakeets
Stanley Parrakeets
Conures
Bronze-wing Doves
Brush Bronze-wing Doves
Necklace Doves
Diamond Doves

* Bourke, Hon. Mrs. G., 75, Gloucester Place, London, W.
Blue Budgerigars

* Burgess, Mrs. M., Helston House, 56, St. John's Road, Clifton, Bristol.
Blue Budgerigars
Olive Budgerigars
Yellow Budgerigars
Green-blue-bred Budgerigars
Roller Canaries

* Chatterton, Mrs. A., Talodi, King's End Avenue, Ruislip, Middlesex.
Budgerigars Cockateels
Zebra Finches

* Calvocoressi, P. J., Home Bey, Croxteth Drive, Liverpool.
Blue-bred Green Budgerigars Zebra Finches

* Marsden, J., F.Z.S.. The Bungalow, Banks Lane, Heysham Harbour, Lancs
Green (Blue-bred) Budgerigars

* Pithie, Miss D., 68, Clarendon Road, Southsea, Portsmouth.
Zebra Finches.

* Montefiore, Mrs. H. Sebag, East Cliff Lodge, Ramsgate.
Green Budgerigars Cockateels

Tavistock, The Marquis of, Warblington House, Havant, Hants.
Stanley Parrakeets Barnard's Parrakeets

* Tracey, Mrs. A. L., Halsham, Teignmouth, Devon.
Zebra Finches.

* Young, H. R., 76, Mitcham Lane, Streatham, London, S.W., 16.
Zebra Finches.

Any member wishing their name added to this register must send in their name with full particulars as to species they possess breeding pairs of, to the Hon. Business Secretary.

◆

The Bird Market.

Members' Rates: One penny per word; minimum one shilling. Non-members and all Trade advertisers must apply to the Agents (*vide* page *iii.* of cover). Advertisements for respective issues must be sent to the Hon. Editor not later than the 8th of each month.

MEMBERS' SALES, EXCHANGES, AND WANTS

FOR SALE: Senegal Parrot, tame, perfect, acclimatised, believed hen; £4 10s. or offer.—Windybank, Blaen, Canterbury.

FOR SALE: Three young Cockateels, April hatched, two hens 17s. 6d. each, cock 15s. Two pairs Yellow Budgerigars 18s. 6d. per pair; two pairs Blue-bred 15s. pair. All outdoor aviary-bred.—Mrs. Mackness, 22 Cypress Road, Finchley, London: N., 3.

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RULES.

1. The objects of "The Foreign Bird Club" shall be the mutual encouragement and assistance of the members in keeping and breeding all species of Birds, and the exhibiting of Foreign Birds and the improvement of Shows in regard to them.

2. The Club shall be composed of members. Every member shall pay an entrance fee of 5s., and an annual subscription of 20s. Subscriptions shall be due and payable in advance on the 1st of January in each year. If any member's subscription shall be more than three months overdue, he shall be suspended from all benefits of the Club, and if more than nine months overdue, notice of his having ceased to be a member of the Club, and of the cause, may be published in Notices to Members; and on such notice being published he shall cease to be a member accordingly, *but his liability for overdue subscriptions shall continue.*

3. New Members shall be proposed in writing by a Member of the Club; and the name and address of every person thus proposed, with the name of the person proposing him, shall be published in the Notices to Members. Unless the Candidate shall, within fourteen days after the publication of his name, be objected to by at least two Members, he shall be duly elected. If two or more Members shall lodge with either of the Secretaries objections to any Candidate he shall not be elected, but the signature to the signed objections must be verified by the Scrutineer. The Secretaries and the Scrutineer shall not disclose the names of the objectors.

4. Any member wishing to resign at the end of the current year of the Club shall give notice of intention to one of the Secretaries before the 31st of December, and in default of such notice *he shall be liable for the following year's subscription.*

5. The Officers of the Club shall be elected from the Members, and shall consist of a President, one or more Vice-presidents, an Auditor, a Scrutineer, one or more Secretaries, a Treasurer, a Veterinary Surgeon, a Council of Twenty-four Members and such number of Judges as shall from time to time be determined by the Council. The Editor, Secretaries, Treasurer, President and Veterinary Surgeon shall be *ex-officio* members of the Council.

Three Members of the Council shall retire annually by seniority, but are eligible for re-election. The Editor, Secretaries, and Treasurer shall be elected trienially. The Council and Judges shall be elected in a manner hereinafter provided. The other officers shall be elected annually at a meeting of the Council, immediately after their own election.

6. The election for the three annual vacancies on the Council, and the Judges, shall take place every year between the 15th November and the 5th December. The Secretaries shall ascertain which of the Members are willing to stand for election to office, and shall send to each Member of the Club, on

or about the 15th of November, a voting paper containing a list of all such members, showing the offices for which they are respectively seeking election. Each Member shall make a (×) opposite the names of those for whom he desires to vote, and shall sign the paper at the foot, and send it in a sealed envelope to the Scrutineer, so that he may receive it before 5th December. The Scrutineer shall prepare a return of the officers elected, showing the number of votes recorded for each Candidate, and send it to one of the Secretaries for publication in the Notices to Members for December. The Scrutineer shall not reveal to any person how any Member shall have voted. In the event of an equality of votes the president shall have a casting vote.

7. Dealers in birds shall not be eligible for election to any office in the Club, except that of Judge. For the purpose of this rule, any Member who habitually buys birds with the intention of selling them again, shall be deemed a bird dealer. Before the annual election of officers, the Secretaries shall submit to the Council the list of Members willing to stand for election to the Secretaryship, the Treasurership, and the Council; and the Council shall remove from the list the name of any Candidate who shall be, in the opinion of the Council, a dealer in birds, within the meaning of this rule. The decision of the Council or of any Committee to whom the Council shall delegate its power under this rule, shall be final. When a dealer is proposed as a Member of this Club, the fact of his being a dealer shall be stated in the Notices to Members.

8. It shall be lawful for the Council to delegate any of its powers to a committee.

9. The Council may appoint an Arbitration Committee, which may decide questions at issue between Members, when requested to do so by both parties. Any decision of such Committee shall be final. Except to the extent permitted by this rule, the Club and its officers shall decline to concern themselves with disputes between Members.

10. The Council shall have power to alter and add to these Rules, but shall give the members notice of any proposed alteration or addition, and in the event of six members objecting thereto within fourteen days, the proposed alterations or additions shall be submitted to the votes of the Members. Failing such objection the alteration shall date from its adoption by the Council.

11. The Council shall have power to expel any member at any time.

12. Neither the office of Scrutineer nor that of Auditor shall be held for two consecutive years by the same person. The Scrutineer shall not be a Candidate at any Election at which he acts as Scrutineer.

13. If any office becomes vacant at any time than at the end of the current year of the Club, the Council shall have pawer to appoint any Member to fill the vacancy.

14. The decision of a majority of the Council shall be final and binding on the Club, but a resolution passed by the Council shall not be acted upon unless there be an absolute majority of the Council (and not merely of those voting) in its favour.

RULES GOVERNING CLUB'S PATRONAGE AT SHOWS.

1. The Patronage of the F.B.C. is given at all OPEN SHOWS, provided the following conditions are observed.

(*a*) At least three classes must be provided for *FOREIGN BIRDS* (excluding local and members' classes, in which no bird competing for F.B.C. patronage may be shown).

(*b*) The classification and name of the judge must be submitted by Show Secretaries, when applying for patronage.

(*c*) Those societies obtaining patronage must print in the schedule that the section is under the patronage of the F.B.C.

(*d*) That no alteration (amalgamation or cancellation) of classes must be made, or the judges changed without giving notice to the Hon. Show Secretary of the F.B.C., in which case the original patronage does not hold good.

2 All MEDALS are awarded to BEST BIRDS (but the Committee have the right to award extra medals for special purposes) and no silver medal is granted where less than six classes are provided.

3. Members of the F.B.C. *must* place F.B.C. after each entry on entry forms, and should request show secretaries to print these initials in their catalogues.

4. No Member can win more than two medals in a season, *i.e.*; one silver and one bronze, or more than one medal at the same show.

5. The London Silver Cup is offered for competition at all Shows under patronage in the London Postal District, where ten or more classes are given, and the Provincial Silver Cup at Shows outside this area, for points gained throughout the season by nominated birds.

6. These Cups become the property of those who have won them three times (not necessarily in succession), and only three birds at each Show can be nominated, which is done by writing the word "Cup" after the entries on entry form. If members nominate more than three birds they will be disqualified for that show.

7. These conditions only hold good where Show Societies and Members observe the rules. Failure to conform annuls all offers, and the birds

of a member whose subscription is unpaid at the time of making an entry are ineligible to compete.

8. Points for the Cup to count as follows: 1st, 7 points; 2nd, 6 points; and one point off for each lower award. Should a tie take place, the member taking the most prize money to win.

9. Any item not herein provided for, may be dealt with at the discretion of The Show Committee.

RULES RE BREEDING MEDALS.

1. The F.B.C. Medal for Breeding a Species or Hybrid for the first time in captivity in Great Britain, will be awarded on the following conditions only:

(*a*) As detailed an account of the success as possible must be sent for publication in Bird Notes as soon as the young can fend for themselves.

(*b*) The Awards Committee, whose decision shall be final, to make the awards from the Secretary's data, and the published articles recording successes.

(*c*) The awards will be made, and the medals distributed at the close of each successive season, or as soon afterwards as the publication of said articles permit.

2. SPECIES: The young must be reared to be independent of their parents. The eggs must be incubated and the young reared by the pair of birds producing the eggs, or the record is not eligible for the medal; except in the case of parasitic species.

3. HYBRIDS: For any cross not previously reared in captivity, between any two species—the domestic Canary as one of the parents alone being excepted. A cross between any two species is only once recognised,

e.g., Parson Finch × Long-tailed Grassfinch, and Long-tailed Grassfinch × Parson Finch are reckoned as the same Hybrid for the purposes of this award, and whichever was secured first would hold the record. The eggs must be incubated and the young reared by the pair of birds producing the eggs, or the record will not be eligible for a medal.

ROLL OF MEMBERS.

Honorary Member.

Filmer, H. R. (*Founder*), Brendon, 22, Carrington Road, Brighton.

◆

Ainsworth, A., 13 Henry St., Kilbronie, Wellington, New Zealand. (August, 1920).

Allan, J. W., Bondgate, Alnwick. (April, 1911).

Amsler, Dr. Maurice, Eton Court House, High Street, Eton, Windsor. (March, 1909).

Arnold, R., Tower House, Leigham Court Road, Streatahm, London, S.W. 16. (March, 1912).

Arnott, Peter, Grant Street, Alloa. (December, 1913).

Atkinson, Capt. F. B., Gallowhill, Morpeth, Northumberland. (Aug. 1920).

Ayton, Ed., 71 Grosvenor Street, London, W., 1. (March, 1918).

Baily, W. Shore, Boyers House, Westbury, Wilts. (June, 1909).

Bainbridge, Capt. W. A., Keynston Manor, Tarrant Keynston, Blandford. (September 1912).

Bamford, Wm., Bridgecroft, Kent Road, Harrogate. (June, 1904).

Barnard, T. T., Duncote Hall, Towcester.

Barnes, A. H., 34 Gledstaines Road, Baron's Court, London. W. (May, 1921)

Bartels, O., "Orchida," Mayne, Brisbane, Queensland, Australia. (Jan. 1917)

Bath, Marchioness of, Longleat, Warminster. (May, 1921).

Batty, Capt. W. R., 11 Park Road, Southport. (October, 1915).

Bearby, W. R., 34, Church Street, West Hartlepool. (January, 1922).

Beaty, S., Strathnarn, Davey Lane, Alderley Edge, Manchester. (Mar. 1908).

Beebe, C. W., Curator of Ornithology, New York Zoological Park, New York City, U.S.A. (July, 1911).

Best, Cyril, Pye Bridge, Alfreton, Derbyshire. (August, 1921).

Birbeck, W., Stoke Holy Cross, Norwich. (September, 1920).

Bledisloe, Lady, Lydney Park, Gloucester. (January, 1922).

Boosey, E. J., The Cedars, Bromley Common, Kent. (February, 1921).

Bourke, Hon. Mrs. Gwendolin, 75 Gloucester Place, Portman Square, London. W. 1. (Dec. 1909).

Bo[illegible]field, Miss M[illegible] Hazelmere, New Milton, Hants. (January, 1908).

Bowring, Miss Clara, Ascot Heath Lodge, Ascot, Berks. (July, 1914).

Bright, Herbert, Woolton Tower, Woolton, Liverpool. (October, 1911).

Brook, E. J., F.Z.S., Hoddam Castle, Ecclefechan, Dumfrieshire. (Mar. 1908)

Browning, W. H., 16 Cooper Square, New York, U.S.A. (February, 1910).

Bufton, Reginald P., Caerhyn, Llandrindod Wells, Radnorshire. (Jan. 1913)
Burgess, Mrs., Helston House, 56 St. John St., Clifton, Bristol. (Sept. 1915)

Calvocoresi, P. J., Holme Hay, Croxteth Drive, Liverpool. (October, 1916)
Capern, F., Lewin's Mead, Bristol. (October, 1907).
Carr, Percy, Ormond Lodge, Newbold-on-Stour, Stratford-on-Avon. (November, 1918).
Carr, R. H., Norman House, Uppingham Road, Bushby, Nr. Leicester. (November, 1919).
Case, Mrs. A. M., Holmbury, Silverdale Road, Eastbourne. (February, 1918).
Chaplin, Mrs. Drummond, Government House, Salisbury, Rhodesia. (July, 1914).
Chaplin, E. W., The Firs, Great Amwell, Ware. September, 1903).
Chatterton, Mrs., Talodi, King's End Avenue, Ruislip, Middlesex. (Jan. 1915)
Chawner, Miss E. F., Forest Bank, Lyndhurst, Hants. (July, 1910).
Child, F. R., Braemar, Downs Road, Luton, Beds. (March, 1920).
Christie, Mrs. G., Kellas, By Elgin. (January, 1913).
Clarke, L. Hyde, Woodlands, St. Olave's, Gt. Yarmouh. (October, 1918).
Clarke, S., " Vue du Lac," Fermain, Guernsey. (August, 1911).
Cleeburg, Chas., junr., Bellevue House, Dumfries, N.B. (December, 1916)
Connell, Mrs. Knatchbull, The Orchard, Brockenhurst, Hants. (July, 1912)
Cook, Mrs. A. M., F.Z.S., 5 Lancaster Road, Hampstead, London, N.W. 3. (February, 1916).
Croker, Chas. E., Burrow Inch, Lower Bourne, Farnham. (October, 1911)
Crow, C. F., Lindsey Bank House, Grimsby. (October, 1915).
Currie, J., 128 Willowbrae Road, Edinburgh . (August, 1913).
Cushny, Charles, c/o Messrs. Neish, Howell and Haldane, 47 Watling St., St. Paul's, E.C. (Orig. Mem.)

Davies, Mrs. M. H., St. Ann's, Tintern, Chepstow. (January, 1914).
Davey, R. W., 33 St. Luke's Road, Totterdown, Bristol. (November, 1919).
Decoux, A., Gery, Par Aixe-sur-Vienne, France. (May, 1919).
Delacour, Jean, Chateau de Cleres, Cleres (Seine-Inferieure), France. (January, 1910).
Dennis, Mrs. Harold, Lisle Court, Wooton, I.O.W. (January, 1904).
Dennis, Mrs. Cyril, Oakley Hall, Market Drayton, Salop. (June, 1920).
Dell, C. E., 9 Greenhill Road, Harrow. (January, 1914).
Dickinson, Mrs. E., The Bridges, Upper Slaughter, Gloucester. (Jan. 1918).
Dobbie, J., Waverley Works, Leith, Edinburgh. (April, 1906).
Dunleath, The Lady, Ballywater Park, Ballywater, co. Down. (Nov. 1901).
Dyott, Miss Mary, Freeford, Lichfield. (November, 1912).

Earle, J. Hudson, Newgate House, Cottingham, Hull. (March, 1914)
Ebrill, Wm., "Greenville," South Circular Road, Limerick. (April, 1906).
Edmunds, W., Blenheim, Park Road, Swanage, Dorset. (November, 1909).
Edwards, J., 1224 East Forty-third Street, Los Angeles, California, U.S.A. (January, 1920).
Ellis, Miss J. G., Cranbrook Hall, Windsor. (January, 1920).
Ezra, A., F.Z.S., Foxwarren Park, Cobham, Surrey. (January, 1911).
Ezra, D., 3 Kyd Street, Calcutta, India. (August, 1912).

Falkner, Guy, Boodles Club, St. James' St., London. W. 1. (Nov. 1916).
Fasey, Wm. R., The Oaks, Holly Bush Hill, Snaresbrook, N.E. (Jan. 1903).
Few, T. H., Hyde House, Hart Hill, Luton, Beds. (January, 1920).
Fisher, W. H., The Bush Hotel, Farnham. (May, 1908).
Fitch-Daglish, Dr. E., F.Z.S., 8 Beaulieu Villas, Finsbury Park, London, N. 4. (April, 1919).
Ford, A. Freeman, 215 South Grand Avenue, Pasadena, California, U.S.A. (October, 1918).
Foster, T., Fairlight, Babbacombe, Torquay. (March, 1914).
Fowler-Ward, Dr. F., 40 Berners Street, Ipswich. (October, 1913).
Frost, W. J. C., 6 Wards Ave., Fulham, S.W. 6. (August, 1913).

Garcke, Mrs. C., Wye Lodge, Maidenhead. (June, 1916).
Gerrard, Miss M., 32 Lung Arno A. Vespucer, Florence, Italy. (June 1914) Italy. (June, 1914).
Gills, R. H., 79 Lordships Park, Stoke Newington, London: N., 16. (February, 1919).
Goodwin, T. J., 185 Old Kent Road, London, S.E. (January, 1920).
Gorringe, The Rev. Reginald, Manston Rectory, Sturminster Newton, Dorset. (December, 1902).
Gray, H., M.R.C.V.S., 1 Redfield Lane, Earls' Court Road, S.W. 5. (May, 1906).
Grossmith, J. L., The Grange, Bickley, Kent. (January, 1913).
Grove, Mrs. Julian, Brattemsley House, Lymington, Hants. (March, 1917)
Gurney, G. H., Keswick Hall, Norwich. (June, 1913).

Hand, Miss R., Brumcombe, Boars Hill, Oxford. (January, 1919).
Harbord, Miss M. L., Lorton Park House, Lorton, Cockermouth. (April 1916).
Harcourt, The Rt. Hon. Viscount Lewis, P.C., Mincham Park, Oxford. (April, 1914).

Harper, E. W., F.Z.S., M.B.O.U., c/o Thos. Cook and Sons, Calcutta, India. (October, 1907).
Harris, Chas., F.Z.S., 127 King's Cross Road, London, W.C. (April, 1910).
Harrison, T. O., 127 Hastings Street, Sunderland. (March, 1918).
Hartley, Mrs. E. A., Lynchfield, Bishop's Lydeard, Taunton. (Sept. 1907).
Hawkins, J. E., Belvedere, Streetley Lane, Four Oaks, Sutton Coldfield, Birmingham. (April, 1915).
Hawkins, L. W., 20 Norton Folgate, London: E., 1. (Orig. Mem.).
Hebb, T., Brooklea, The Downs, Luton. (August, 1912).
Henstock, J. H., Market Place, Ashbourne, Derbyshire. (March, 1907).
Hewitt, F. W. G., The Old Hall, Weelsby, Grimsby. (April, 1909).
Hincks, Miss E. M., Easterlands, Wellington, Somerset. (December, 1904).
Hopkinson, Emilus, D.S.O., M.A., M.B., Bathurst, Gambia, West Africa. (October, 1901).
Horne, A., Bon-Na-Coille, Murtle, Aberdeen. (August, 1917).
Hume, James, Hepscott, Morpeth. (June, 1903).
Hunnings, Lieut. A., F.S.I., Town Hall, Mare St., Hackney, London, N.E. (March, 1918).

Jeakins, A. E., Winscottie, Simla, India. (April, 1916).
Jersey, The Couness of, Middleton Park, Bicester. November, 1912).
Johnson, Miss L. Sturton, Orotava House, Ore, Hastings. (Sept., 1910).

Kennedy, Mrs., 7 Albion Road, Sutton, Surrey. (May, 1908).
Kewley, Mrs. M. A., Barwich House, Yeovil, Somerset. (September, 1910)
King, A., 1101 South Orange Grove Ave., Pasadena, California, U.S.A. (March, 1920).
Knobel, Miss E. Maud, 32 Tavistock Square, London, W.C. (Dec. 1911).

Lecallier, Mme. G., 109 Rue de la Republique, Candebee-Les-Elbeuf, Seine-Inf., France. (August, 1919).
Legh de Legh, Col. H., Shincliffe, near Durham. (April, 1911).
Lilford, The Lord, Lilford Hall, Oundle, Northants. (January, 1914).
Livings, M. L., 39 Cambridge Road, Gunnersbury, W. 4. (March, 1920).
Longdon, Mrs. C. A., Arreton, Epsom Road, Guildford. (February, 1909).
Low, G. E., 14 Royal Terrace East, Kingstown. (May, 1914).
Lowndes, Capt. D. G., Lansdowne, Garwhal, U.P. India. (March, 1920).
Lucas, Miss Emma, Bramblehurst, East Grinstead, Sussex. (Sept., 1913).

Lucas, Capt. N. S., M.B., F.Z.S., (*Hon. Pathologist*), 19 Westbourne Terrace, Hyde Park, London, W. 2. (January, 1914).

MaDonagh, J. E. R., M.R.C.S., L.R.C.P., F.Z.S., L.L.S., 4 Wimpole Street, London, W. (January, 1903)

McDonald, Miss, The Cottage, Hollington Park, St. Leonard's-on-Sea. (Rejoined January, 1922).

McCall, Rev. R. Hore, Thorne Rectory, Yeovil. (October, 1921).

Macdonald, Miss V., F.Z.S., Ipley Manor, Marchwood, Hants. (Jan. 1921)

Mackay, Kenneth S., Imber Cross, Thames Ditton, Surrey. (May, 1921).

Mackness, Mrs. N., Cypress Road, Church End, Finchley, N. (June, 1916)

Mappin, Stanley, 12 Albert Hall Mansions, Kensington Gore, London, S.W.

Marsden, J., F.Z.S., The Bungalow, Banks Lane, Heysham Harbour, Morecambe, Lancs. (March, 1914).

Marshall, M. M., South Grand Ave., Pasadena, California, U.S.A. (March, 1919).

Master, G., M.B., B.C., 86, Guildhall Street, Bury St. Edmunds. (Nov. 1903).

Maxwell-Jackson, Miss M., Berry End, Knaresborough, Yorks. (Jan. 1913).

Maxwell, C. T., 1 Shardcroft Aven., Herne Hill, S.E. (December, 1908).

Millsum, O., The Firs, Westwood, Margate. (July, 1907).

Molyneux, W., Rua Gen Gurjao, 33, Pont do Caju, Rio de Janeiro. (January, 1922).

Montague, G. R., 63 Croxted Road, Dulwich, S.E. 21. (February, 1909).

Montgomery, W. O., c/o Mrs. Hulse, Alexandra Road, Hornsea, Hull. (January, 1913).

Mortimer, Mrs., Wigmore, Holmwood, Surrey. (Orig. Mem.)

Mundy, Miss Sybil, Grendon Hall, Grendon, Northampton. (Aug., 1911).

Mulvey, W. E., 5 Overleigh Road, Chester. (January, 1921).

Murray, S., 14 Beauford Gardens, Lewisham, S.W. 1. (October, 1920).

Murton Marshall, 122 Sloane Street, Chelsea, London, S.W. 1. (Aug. 1913)

Nairne, Dr. S., Burleigh Mead, Hatfield, Herts. (January, 1920).

Oakey, W., The Anglers' Inn, Pole Street, Preston. (Orig. Mem.)

Oberholser, Harry C., 2805, 18th Street, N.W., Washington, D.C., U.S.A. (December, 1903).

O'Reilly, Nicholas S., 144 Eastern Road, Kemp Town, Brighton. (Orig. Mem.)

Page, W. T., F.Z.S., M.B.O.U., *(Hon. Editor)*, Langstone, Lingfield, Surrey (May, 1905).

Painter, V. Kenyon, Cleveland, Ohio, U.S.A. (November, 1910).

Parker, S. T., 42, Turner Road, Dereham Road, Norwich. (Rejoined January, 1922).

Paterson, Mrs. A., 15, Brunswick Gardens, Campden Hill, London, W., 8. (Rejoined January, 1922).

Perkins, E., Chester Hill, Woodchester, Stroud, Gloucs. (February, 1903).

Petticrew, M., 6 Fifth Avenue, Kelvinside, Glasgow, W. (January, 1920).

Phillips, E. R., 12 Waltham Terrace, Blackrock, Ireland. (September, 1915)

Pike, L. G., F.Z.S., King Barrow, Wareham. (December, 1910).

Pilkington, Lady Kathleen, Chevet Park, Wakefield. (September, 1908).

Pithie, Miss D. E., 68 Clarendon Road, Southsea, Portsmouth (rej. Jan. 1918)

Pollack, A. J., Loretto House, Heaton, Bradford. (August, 1917).

Pond, Mrs. T., Wylfa, Llangollen. (November, 1902).

Pope, Mrs. Howden, Tiverton, Devon. (February, 1914).

Porter, J. W., c/o Commonwealth Trust Ltd., 35, Old Jewry, London, E.C. 2

Porter, S., Selwyn House, Old Normanton, Derby. (August, 1920).

Powell, Miss M. M., Hawthorn House, Oakhill Park, Old Swan, Liverpool.

Prior, F., Nala Lodge, Stoke Hill, Worplesden, Guildford. (July, 1920). (May, 1914).

Perreau, Mrs. G. A., 16 Evelyn Court, Lansdown Terrace, Cheltenham. (September, 1916).

Pullar, Lawrence H. F., F.Z.S., Dunbarnie Cottage, Bridge of Earn, Perthshire. (October, 1913).

Purvis, Mrs. C. J., West Acres, Alnwick, Northumberland. (October, 1911)

Pyman, E. E.. West House, Hartlepool. (May, 1919).

Quincey, R. de Quincey. Inglewood, Chislehurst, Kent. (Auguse, 1910).

Rabb, D. S., Inglewood, California, U.S.A. (August, 1920).

Rattigan, G. E., Fluder, Kingskerswell, Nr. Newton Abbott. (March, 1909).

Raynor, Rev. G. H., M.A., The Lilacs, Brampton, Huntingdon. (Dec. 1909)

Read, Mrs. W. H., Church Croft. Thames Ditton, Surrey. (rej. Jan. 1921)

Reeve, Capt. J. S., F.Z.S., Leadenham House, Lincoln. (March, 1908).

Restall, J. A., 82 Cambridge Street, Birmingham. (November, 1903).

Rice, L. K., Hirstmonceux, Sussex. (January, 1922).

Robbins, H., 37 New Oxford Street, London, W.C. 1. (October, 1908).

Rogers, W. T., 21 Priory Villas, New Road, Brentwood. (October, 1907)

Rotherwell, James E., 153 Sewell Avenue, Brookline, Mass., U.S.A. (February, 1911).

Rumsey, Lacy, 23 Rua de Terpa Pinto, Villa Nova de Gaya, Oporto, Portugal. (October, 1911).

Ryan, G. E., (Bar-at-Law), 31 Porchester Terrace, Hyde Park, W. 2. (November, 1913).

Schuyl, D. G., 12 Toe-Haringvliet, Rotterdam, Holland. (January 1914).

Scott, Capt. B. Hamilton, Hamildean, Ipswich. (July, 1910).

Scott, A. H., Furze Creek, Bosham, Sussex. (October, 1915).

Sebag-Montefiore, Mrs., East Cliffe Lodge, Ramsgate. (May, 1914).

Sich, H. L., Corney House, Burlington Lane, Chiswick, London, W. 4. (June, 1908).

Silver, Allen, F.Z.S., 18 Baneswell Road, Newport, Mon. (Rej. 1920).

Simpson, R. E., 1 Highthorne Grove, Armley, Leeds. (December. 1907).

Slade, G. J., 34 Milton Road, Fitzhugh, Southampton. (February, 1915).

Smith, W. W., 43 Connaught Road, Harlesden, N.W. 10. (April, 1920).

Snape, Maj. A. E., R.A.F., (*Hon. Business Secretary*), 5 Ryburn Avenue, Marton, Blackpool. (March, 1918).

Snarey, H., 21 Leamington Road, Blackburn. (March, 1911).

Southcombe, S. L., Hill House, Stoke-under-Ham, Somerset. Sept. 1910).

Sprankling, E., Brookland Cottage, South Road, Taunton. (February, 1908)

Sprawson, Capt. E., M.C., M.R.C.S., etc., 68 Southwood Land, Highgate, London, N. 6. (October, 1913).

Sproston, Mrs., The Elm House, Nantwich. (Jannary, 1911).

Stewart, B. T., Glenhurst, The Crosspaths, Radlett, Herts. (February, 1914)

Storey, Mrs. A., Hawling Manor, Andoverford, Glos. (November, 1912).

Stott, A. E., 15 East Parade, Leeds. (January, 1915).

Street, E., The Poplars, Oatwoods, Anslow, Burton-on-Trent. (May, 1909)

Strickland, E. A., 16 Alma Road, Windsor. (May, 1912).

Suggitt, R., Suggitt's Lane, Cleethorpes, Grimsby. (December, 1903).

Suggitt, W. E., Suggitt's Lane, Cleethorpes, Grimsby. (January, 1915).

Sutcliffe, Albert, Fairholme, Welholme Road, Grimsby. (May, 1907).

Swayne, Henry A., 29 Percy Place, Dublin. (January, 1913).

Sykes, J., 16 Shorthope Street, Musselburgh. (January, 1912).

Taintegines, Baronne le Clement de, Cleveland, Minehead, Somerset. (August, 1913).

Takano, T. Z., 67 Shichome, Honcho, Yokohama, Japan. (January 1922).
Taka-Tankasa, N., 106, Hononuracho Azabu, Tokyo, Japan. (Jan., 1922).
Tavistock, The Marquis of, Warblington House, Havant, Hants. (Jan. 1913)
Temple, W. R., The Lawn, Datchet, Bucks. (December, 1908).
Tomlinson, Malcolm R., Shepherd's House, Inveresk, Midlothian. (April, 1913).
Townsend, S. M., 3 Swift Street, Fulham, S.W. (Orig. Mem.).
Tracy, Mrs. A. L., Halsham, Shaldon, Teignmouth. (February, 1914).
Travers, Mrs. Johnson, 20, Allwyn Park, Dulwich. (December, 1903).
Turner, Herbert J., Tremadoc, Keyberry Road, Newton Abbott. (Feb. 1915)

Valentine, E., 7 Highfield, Workington. (December. 1911).
Vere, Miss Hope, Westcliffe, North Berwick. (January, 1922).
Vermillion, D. S., 11 Chester Place, Los Angeles, California, U.S.A. (January, 1920).
Waddell, Miss E. G. R. Peddie, 4 Great Stuart St., Edinburgh. (Feb. 1909)
Wait, Miss L. M. St. A., 12 Rosary Gardens, South Kensington, London. S.W. (December, 1007).
Walker, J. Carr, Pannal Hall, Pannal, Near Harrogate. (March, 1916).
Wallace, Norman H., Iveragh, Shelbourne Road, Dublin. (June, 1917).
Walmsley, J., "Dalecot," Mayfield Road, St. Annes-on.Sea. (May, 1919).
Wand, Col., Falcon Rise, Wootton Hill, Newbury. (January, 1922).
Watson, S., 37 Tithebarn Street, Preston. (September, 1910).
Wedge, E., Thorpedale Cottage, Chorley Wood, Rickmansworth, Herts. (February, 1915).
Weir, J., Douglas Cottage, Ashley, New Milton, Hants.
Wellington, H. G., The Duchess of, Ewhurst Park, Basingstoke, Hants. (April, 1918).
Westacott, H., Wellington Hotel, Minehead, Somerset. (September, 1907).
Whistler, Hugh I. P., c/o King, King & Co., Agents, Bombay, India. (January, 1913).
White, A. I., Glenskira, Barrowby Road, Grantham. (November, 1916).
Whitley, H., Primley Hill, Paignton, S. Devon. (January, 1916).
Willford, Henry, (*Hon. Photographer*), Uplands View, Haven Street, Ryde (July, 1908).
Williams, Sidney, F.Z.S. (*Hon. Treasurer and Exhibitional Secretary*), "Oakleigh," 110 Riverway, Palmer's Green, London, N. 13. (October, 1910).
Williamson, T. F. M., 525 Howard Place, South Pasadena, California, U.S.A (August, 1917).

WILSON, Miss F. M., 35 Emanuel Avenue, Acton, Middlesex. (March, 1906)

WINCHILSEA and NOTTINGHAM, The Countess of, Haverholme Priory, Sleaford (June, 1903).

WINDYBANK, L. A., Blean Hyrst, Blean, Nr. Canterbury. (June, 1916).

WOODWARD, KENNETH N., Kenwood, Blairstown, New York, U.S.A. (February, 1915).

WORKMAN, W. H., F.Z.S., M.B.O.U., Lismore, Windsor, Belfast (June, 1912)

WORMALD, H., Heathfield, East Dereham, Norfolk. (rej. January, 1920).

YEALLAND, JAMES, Binstead, Ryde. (September, 1909).

YELLIBRAND, Commander H. B., 180 Sandgate Rd., Folkestone. (Nov. 1920).

YOUNG, Lieut. H. R., 76 Mitcham Lane, Streatham, London, S.W. 16. (January, 1920).

ZOOLOGICAL SOCIETY, The New York, 185th Street and Southern Boulevard, New York, U.S.A. (March, 1917).

ZOOLOGICAL SOCIETY OF PHILADELPHIA, The, Philadelphia, Penna, U.S.A. (January, 1920).

The Hon. Business Secretary requests that he may be promptly informed of any errors in the above List

FEBRUARY 1922.

The Foreign Bird Club.

Hon. Solicitor:
H. R. Fillmer, Church Street, Brighton.

Hon. Photographer:
H. Willford, Upland View, Havenstreet, Ryde.

Hon. Pathologist:
N. S. Lucas, M.B., F.Z.S., Prosectorium, Zoological Society, Regent's Park, London: N.W.

Magazine Committee:

Dr. M. Amsler.
W. Shore Baily
N. S. Lucas, M.B., F.Z.S.
Dr. J. E. R. McDonagh.
Rev. G. H. Raynor, M.A.
R. Suggitt.
H. Willford.

Show Committee:

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Lady Kathleen Pilkington.
The Hon. Mrs. G. Bourke.
S. Williams, F.Z.S. (*Hon. Sec.*)

Social Committee:

H. G. The Duchess of Wellington.
Hon. Mrs. G. Bourke.
Mrs. E. A. H. Hartley.
W. R. Temple.
W. Bamford.
W. T. Rogers (*Hon. Sec.*)
A. Suttcliffe.

Awards Committee:

The Countess of Winchilsea.
Capt. W. A. Bainbridge.
H. Bright.
Capt. G. E. Rattigan.
E. W. Chaplin.
R. Soggitt (*Hon. Sec.*)

◆

Notices to Members.

The Magazine: The lateness of the appearance is entirely due to the Editor's indisposition—he being quite unable to complete the green-page Inset. However, we hope to issue March Bird Notes by the end of the month, and April issue at the proper date.

The Roll: There are several proved errors in the Roll, and the Hon. Secretary is anxious to get it thoroughly corrected, both as to spelling of names, initials and addresses. We, therefore, request *each* member to look up their name on the roll and to notify the Hon. Sec. at once of any inaccuracy.

WESLEY T. PAGE, *Hon. Editor.*
MAJ. A. E. SNAPE, *Hon. Business Secretary*

Deficit and Illustration Funds.

These two funds need all the help members can give them. The committee acknowledge with best thanks the following:

	£	s.	d.
Boosey, E. J.	0	5	0
Chawner, E. F.	0	10	0
Reeve, Capt. J. S.	0	17	0
Walker, H. Carr	0	10	0
Wellington, H.G. The Duchess of	1	0	0

New Member Elected.

Porter, J. W., c/o Commonwealth Trust Ltd., 35, Old Jewry, London, E.C. 2

Proposed for Election as Members.

Horace Czarnikow, Hollongton House, Newbury.
By Capt. L. R. Waud.

Changes and Corrections of Address.

Powell, Miss M. M., to Roselyn, Oakhill Park, Liverpool.

Williamson, T. F. M., Apartment 411, St. Catherine Apartments, 1242 Polk Street, San Francisco, California, U.S.A.

Woodward, K. N., 1 Madison Avenue, New York, U.S.A.

Errata re Roll.

Taka-Tankasa, N., *should read* Taka-Tsukana, N.

Col. L. R. Wand, etc., *should read* Capt. L. R. Waud, Falcon Close, Woolton Hill, Newbury.

J. Carr Walker, *should read* H. Carr Walker.

A. J. White, for Gleshire *read* Glenshire.

Delete from Roll.

W. Oakey.
J. A. Restall.
Commander Yellibrand.

◆

Register of Club Breeders.

(*vide* Jan. issue, green pages, 2—3).

DELETE

Budgerigars under
Calvocoressi, P. J.

ADD

Boosey, E. J., The Cedars, Bromley Common, Kent.
Red-rump Parrakeets
Pennant Parrakeets
Green Budgerigars
Diamond Sparrows
Zebra Finches.

Reeve, Capt. J. S., F.Z.S., M.B.O.U., Leadenham House, Lincoln.
Red-rump Parrakeets
Triangular-spotted Pigeons

◆

The Bird Market.

Members' Rates: One penny per word; minimum one shilling. Non-members and all Trade advertisers must apply to the Agents (*vide* page *iii.* of cover). Advertisements for respective issues must be sent to the Hon. Editor not later than the 8th of each month.

MEMBERS' SALES, EXCHANGES, AND WANTS

WANTED: Japanese Bantams, or exchange Budgerigars to value.—Marsden, Bank's Lane, Heysham Harbour, Lancs.

WANTED: Unrelated and acclimatised pairs: Triangular Spotted Pigeons, All Green Parrakeets, Red-collared Lorikeets, and Cirl Buntings; also following odd birds (or would sell opposite sex) to make pairs: cock Black-backed Tanager, hen Yellow-billed Cardinal, 2 cock Cordon Bleus, hen Archbishop Tanager, and hen Snow Bunting.—Reeve, Leadenham House, Lincoln.

FOR SALE: Acclimatised true pair of Black Cassiques.—Page, Langstone, Lingfield, Surrey.

ESTABLISHED NEARLY A CENTURY.

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23, KING STREET WEST, MANCHESTER.

To whom address all Enquiries.

The Foreign Bird Club.

Notices to Members.

The Club Journal: Copy is still needed, as per notices in January and February issue. We trust that members will give their utmost co-operation that Bird Notes may be worthy and thoroughly representative of our Society.

Obituary: Our member Mr. J. L. Grossmith passed away in November last, and his membership in F.B.C. has been transferred to his widow Mrs. A. Grossmith, to whom, on behalf of the Club, we extend our sincere sympathy in her bereavement.

Subscriptions in Default: We regret in a few cases no notice has been taken of several applications, leaving us no alternative, unless a remittance be sent on or before April 15th, but to place them in the hands of a solicitor for collection.

Development of the Club: We regret that so little response has been made to the Hon. Secretary's letter in February Bird Notes, pages 45-6; will members kindly consider same and communicate their views?

WESLEY T. PAGE, *Hon. Editor.*
MAJ. A. E. SNAPE, *Hon. Business Secretary.*

Deficit and Illustration Funds.

These two funds need all the help members can give them. The committee acknowledge with best thanks the following:

	£	s.	d.
Rothwell, J. E.	1	0	0

Errata re Roll.

J. E. Rotherwill should read J. E. Rothwell, 153, Sewell Avenue, Brookline, Mass., U.S.A.

Mrs. Burgess: for St. John's Street read St. John's Road.

New Member Elected.

Horace Czarnikow, Hollongton House, Newbury.

Proposed for Election as Members.

Miss Olive Blackburn, Rock End, Torquay.
By Capt. G. E. Rattigan.

G. F. Bolam, 8 Rosslyn Avenue, Low Fell, Gateshead-on-Tyne.
By S. M. Townsend.

H. Boot, Finchfield, Lichfield Road, Sutton Coldfield.
By J. H. E. Hawkins.

Register of Club Breeders.

(*Vide* Green Inset, Jan. pages 2-3, Feb. page 19).

The Bird Market.

MEMBERS' RATES: One penny per word; minimum one shilling. Non-members and all Trade advertisers must apply to the Agents (*vide* page *iii.* of cover). Advertisements for respective issues must be sent to the Hon. Editor not later than the 8th of each month.

MEMBERS' SALES, EXCHANGES, AND WANTS

WANTED: Cocks, Masked Dove, Snow Bunting. and Redpoll; hens. Crossbill and Blue-breasted Waxbill.—Lady Dunleath, Ballywater, Co. Down, Ireland.

WANTED: BIRD NOTES for 1906.—Miss Jackson, Berry End, Knaresborough

FOR SALE: Green. blue-bred Budgerigars, cocks only, also hen Melba Finch.—Mrs. Burgess, 56, St. John's Road, Clifton, Bristol.

FOR SALE: Pair Red Mountain Doves, 40s.; Snow Buntings, 6s. pair.—R. Suggitt, Suggitt's Lane, Cleethorpes.

FOR SALE: Khaki Campbell duck eggs 12s. per doz. Carr. paid. Ducks, Mrs. Campbell's strain; drakes, direct from Leslie Thompson, winner of National Laying Test 1921. Excellent egg records, correct type and colour.—Lt.-Col. de Legh, Shincliffe, Durham.

FOR SALE: Perfect true pair Black Cassiques.—W. T. Page, Langstone, Lingfield, Surrey.

PEDIGREE UTILITY POULTRY: Only the very best supplied in White Wyandottes, Rhode Island Reds, Light Sussex, and Runner Ducks.
Speciality 3 months pullets.
Sitting eggs daily—chicks weekly.
W. A. Bainbridge, Keyneston Manor Poultry Farm, Blandford, Dorset.

ESTABLISHED NEARLY A CENTURY.

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The Foreign Bird Club.

Notices to Members.

Late Issue of Bird Notes : January issue was late owing to Revision of Roll, and, owing to scarcity of copy and ill-health of the Editor it has been impossible to pull up to proper publishing date—'flu followed by an aftermath of brain-fag has prevented the Editor filling gaps as in the past. Thus the only way out of the present *impasse* is to combine May and June issues as a " double number," and to issue same by June 15th, which is the proper publishing date; to this end the Editor requests that copy may be promptly sent in; also that every member will assist by writing articles, etc., to keep the remaining issues of the current volume up-to-date.

MAJ. A. E. SNAPE, *Hon. Business Secretary.*
WESLEY T. PAGE, *Hon. Editor.*

◆

Deficit and Illustration Funds.

These two funds need all the help members can give them.

New Members Elected.

Miss Olive Blackburn, Rock End, Torquay, S. Devon.
G. F. Bolam, 8 Rosslyn Avenue, Low Fell, Gateshead-on-Tyne.
H. Boot, Finchfield, Lichfield Road, Sutton Coldfield.

◆

Proposed for Election as Member.

Walter Potts, 28, Union Street, Hyde, Cheshire.
By Lt.-Col. H. L. de Legh.

◆

Register of Club Breeders.

(*Vide* Green Inset, Jan. pages 2-3, Feb. page 19).

ADD

Laurence H. D. Pullar, Dunbarnie Cottage, Bridge of Earn, Perthshire.
Green Cardinals.
Peach-faced Lovebirds.

The Bird Market.

Members' Rates: One penny per word; minimum one shilling. Non-members and all Trade advertisers must apply to the Agents (*vide* page *iii.* of cover). Advertisements for respective issues must be sent to the Hon. Editor not later than the 8th of each month.

MEMBERS' SALES, EXCHANGES, AND WANTS

FOR SALE: Gouldian Finches, pairs and odd hens and one Red-headed cock. What offers?—Chaplin, Great Amwell, Herts.

FOR SALE: White Peahen, splendid condition, £6; thousands of birds, goldfish, animals and reptiles always in stock.—De Von & Co., 127, King's Cross Road, London, W.C., 1.

FOR SALE: Three young Cockateels, two months old, outdoor aviary bred, 14s. each.—Mrs. Mackness, 22 Cypress Road, Finchley, London, N.3

WANTED: Bird Notes for 1906.—Miss Jackson, Berry End, Knaresborough

FOR SALE: Khaki Campbell duck eggs 12s. per doz. Carr. paid. Ducks, Mrs. Campbell's strain; drakes, direct from Leslie Thompson, winner of National Laying Test 1921. Excellent egg records, correct type and colour.—Lt.-Col. de Legh, Shincliffe, Durham.

FOR SALE: Perfect true pair Black Cassiques.—W. T. Page, Langstone, Lingfield, Surrey.

PEDIGREE UTILITY POULTRY: Only the very best supplied in White Wyandottes, Rhode Island Reds, Light Sussex, and Runner Ducks.
Speciality 3 months pullets.
Sitting eggs daily—chicks weekly.
W. A. Bainbridge, Keyneston Manor Poultry Farm, Blandford, Dorset.

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To whom address all Enquiries.

MAY—JUNE 1922.

The Foreign Bird Club.

Notices to Members.

MEETING OF MEMBERS AT LONDON ZOO: We wish to arrange one meeting during the year at this interesting and pleasant resort. Will those able to be present please communicate with the Hon. Sec. and state which month—July or August—would best suit them.

CHANGE OF HON. SECRETARY'S ADDRESS: This now is: Maj. A. E. Snape, 41 John Dalton Street. Manchester.

MAJ. A. E. SNAPE, *Hon. Business Secretary.*
WESLEY T. PAGE, *Hon. Editor.*

Deficit and Illustration Funds.

These two funds need all the help members can give them. The Committee thankfully acknowledge the following donations:

	£	s.	d.
Bright, H. E.	1	0	0
Garrile, Mrs. C.		1	0
Hopkinson, Dr. E.	1	3	0
Mundy, Miss S.	2	0	0
Perreau, Mrs. G. A.		10	0
Snarey, H.		2	0
Suggitt, R.		10	0
Sutcliffe. A.		4	0

Changes and Corrections of Address.

T. T. Barnard, to Dungote Hall, Towcester.
Miss M. Gerrard, to Casa Frollo, Alla Guidecca, No. 50, Venice.
E. Wedge, to "Overdale," Chorley Wood, Herts.
Dr. E. Hopkinson, to 45 Sussex Square, Brighton.

New Member Elected.

Walter Potts, 28, Union Street, Hyde, Cheshire.

Proposed for Election as Members.

W. Salkeld, Ravenwood, Kirkoswald, R.S.O., Cumberland.
By Maj. A. E. Snape.
Capt. H. B. Boothby, D.S.O., R.N.R., Ambleside, Weelsby, Grimsby.
By R. Suggitt.
Mr. Chapman, High Street, Birmingham.
By J. W. Marsden.
H. S. Stokes, Longdown, Rugeley, Staffs.
By Maj. A. E. Snape.
Capt. F. H. Mitchell, R.N., Hollybank. Emsworth, Hants.
By the Marquis of Tavistock.

Errata re Roll.

Home McCall, should read Horne McCall.

◆

Register of Club Breeders.

(*Vide* Green Inset, Jan. pages 2-3, Feb. page 19).

◆

The Bird Market.

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MEMBERS' SALES, EXCHANGES, AND WANTS

WANTED : Bird Notes for 1906.—Miss Jackson, Berry End, Knaresborough

WANTED : Cock Black-backed Tanager; cock Cordon Bleu; hen Archbishop Tanager; hen full-winged Blossom-headed Parrakeet; cock Red-collared Lorikeet, or would sell hen.—Reeve, Leadenham House, Lincoln.

WANTED : Hen Olive Finch (*Phonipara lepida*).—Page, Langstone, Lingfield, Surrey.

ADVERTISER would be glad to purchase eggs of Impeyan, Eared, or other rare pheasants.—S. Porter, Selwyn House, Old Normanton, Derby.

ESTABLISHED NEARLY A CENTURY.

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To whom address all Enquiries.

The Foreign Bird Club.

Notices to Members.

Post Mortem Examinations: Dr. N. S. Lucas, finding himself with insufficient time at his disposal to continue these, has been compelled to resign his post as Hon. Pathologist. The committee on behalf of the Club tender him sincere thanks for the valuable time and help he has rendered to members while holding that post.

In future P.M. Examinations will be undertaken for members, conditions as heretofore—see rules page ii. of cover—by Mr. C. H. Hicks, Prosectorium, Zoological Gardens, Regent's Park, London, N.W.

MAJ. A. E. SNAPE, *Hon. Business Secretary*
WESLEY T. PAGE, *Hon. Editor.*

Deficit and Illustration Funds.

These two funds need all the help members can give them. The committee thankfully acknowledge the following donation:

	£	s.	d.
Bainbridge, W. A.	0	1	0

Changes and Corrections of Address.

J. Currie, to 55, Netherby Road, Edinburgh, N.B.
W. Molyneux, to Rua de Petropolis, 224, Rio de Janeiro, Brazil.

Errata re Roll.

We regret that in last issue, owing to a clerical error, a revision got transposed.

Rev. R. Hore McCall on Roll should read Home McCall.

Delete from Roll.

D. S. Rabb, California, U.S.A. (Subscription unpaid),
J. Yealland, Binstead, I.W. (deceased).
H. Robbins, Oxford Street, London (resigned).

New Members Elected.

W Salkeld, Ravenswood, Kirkoswald, R.S.O., Cumberland.
Capt. H. B. Boothby, D.S.O., R.N.R., Ambleside, Weelsby, Grimsby.
Mr. Chapman, High Street, Birmingham.
Capt. H. S. Stokes, Longdon, Rugeley, Staffs.
Capt. F. H. Mitchell, R.N., Hollybank, Emsworth, Hants.

Past Member Re-elected.

H T. Boyd, 34 Fortune Green Road, West Hampstead, London, N.W., 6.

Register of Club Breeders.

(*Vide* Green Inset, Jan. pages 2-3, Feb. page 19).

The Bird Market.

Members' Rates: One penny per word; minimum one shilling. Non-members and all Trade advertisers must apply to the Agents (*vide* page *iii.* of cover). Advertisements for respective issues must be sent to the Hon. Editor not later than the 8th of each month.

MEMBERS' SALES, EXCHANGES, AND WANTS

WANTED: A pet parrakeet and cage, must be perfectly tame. State species and price.—Parker, 42, Turner Road, Norwich.

FOR SALE: Adult, acclimatised, breeding pair Red-rump Parrakeets, having reared several youngsters this season, £6, also a young pair £4. Also cock St. Lucian Parrakeet £3, acclimatised.—Capt. J. S. Reeve, Leadenham House, Lincoln.

WANTED: Bird Notes for 1906.—Miss Jackson, Berry End, Knaresboro'

ADVERTISER would be glad to purchase eggs of Impeyan, Eared or other rare pheasants.—S. Porter, Selwyn House, Old Normanton, Derby.

WANTED: Hen Cuban Olive Finch (*Phonipara lepida*); also cock Alexandrine Parrakeet, and full winged, adult hen Blossom-headed Parrakeet.—Page, Langstone, Lingfield, Surrey.

ESTABLISHED NEARLY A CENTURY.

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The Foreign Bird Club.

Notices to Members.

The notices this month are incomplete, owing to the Hon. Editor being away from home. but all omissions will be included in October issue.

MAJ. A. E. SNAPE, *Hon. Business Secretary.*
WESLEY T. PAGE, *Hon. Editor.*

Deficit and Illustration Funds.

These two funds need all the help members can give them. The committee thankfully acknowledge the following donation :

	£	s.	d.
Hewitt, T. W. J.	0	1	0

Proposed for Election as Member.

Horsford, D. M., Bosvathick, Penryn, Cornwall. By the Hon. Editor.

Changes and Corrections of Address.

A. Ainsworth, to. 7, Poro Street, Kilbirnie, New Zealand.
Mrs. Read, to, The Vicarage, Marshchapel, Lincs.

Register of Club Breeders.

(*Vide* Green Inset, Jan. pages 2-3, Feb. page 19).

The Bird Market.

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The Hon. Editor much regrets, that he omitted to bring copy of adverts away with him, so these, perforce, must be held over till next issue.

ESTABLISHED NEARLY A CENTURY.

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The Foreign Bird Club.

Notices to Members.

The Magazine: Copy is still urgently needed to enable the Hon. Editor to issue the Journal at the proper date; while being very grateful to those members who have so staunchly contributed month by month, he strongly urges those members who have not contributed to this volume to do so as early as possible.

MAJ. A. E. SNAPE, *Hon. Business Secretary*.
WESLEY T. PAGE, *Hon. Editor*.

◆

In Memoriam of a Grey Parrot.

In perpetual memory
of
CATTY-ANNE,
The beloved companion of B. Theo. Stewart,
Who fell asleep July 25th, 1919.

Thou was't not born for Death, Immortal Bird.

There are men both good and great,
Who hold that in a future state,
Dumb creatures we have treasured here below
Will give us joyous greeting when we reach the golden gate;
Is it folly that I hope it may be so?
For never man had friend more enduring to the end.

◆

Deficit and Illustration Funds.

These two funds need all the help members can give them. The committee thankfully acknowledge the following donation:

	£	s.	d.
Decoux, A.	0	10	0
Hewitt, T. W. J.	0	1	0

◆

Changes and Corrections of Address.

A. Ainsworth, to 7, Poro Street, Kilbirnie, Wellington, New Zealand.
R. E. Simpson, 25, Gloucester Avenue, Armley, Leeds.
Dr. E. Hopkinson, D.S.O., to Bathurst, Gambia, West Africa.

New Member Elected.

Horsford, D. M., Bosvathick, Penryn, Cornwall.

The Bird Market.

Members' Rates: One penny per word; minimum one shilling. Non-members and all Trade advertisers must apply to the Agents (*vide* page *iii.* of cover). Advertisements for respective issues must be sent to the Hon. Editor not later than the 8th of each month.

MEMBERS' SALES, EXCHANGES AND WANTS.

FOR SALE: Champion-bred Cairn and West Highland Puppies for sale, or exchange Albino finches.—Scott, Bosham, Sussex.

WANTED: One or two pairs of young canaries from outdoor aviary.—Kewley, Barwick House, Yeovil.

WANTED: Two hen Diamond Doves.—W. R. Temple, The Lawn, Datchet, Bucks.

FOR SALE: 1 pair Red-rump Parrakeets, £4; 2 adult Peaceful Ground Doves 10s. each.—Hawkins, Belvedere, Streetly Lane, Sutton Coldfield.

FOR SALE: Bird Notes, bound volumes, 2 to 7, earliest series, also odd vols. later series, unbound. Few *Avicultural Magazine*, bound and unbound. Cassell's *Cage Birds*, foreign section by Weiner, out of print. WANTED: Seth-Smith's *Parrakeets*. Stamp reply.—Boyd, 34 Fortune Green Road, West Hampstead, London.

ESTABLISHED NEARLY A CENTURY.

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The Foreign Bird Club.

Notices to Members.

OBITUARY: It is with much regret that we have to announce three losses this month, viz., W. R. Temple, Datchet, Bucks, A. R. Horne, Murtle, Aberdeen, and Lieut. H. R. Young, Streatham, S.W.

Mr. Temple is quite an old member of F B.C., and for some years has served on the Council. He was a keen aviculturist, being interested principally in *Ploceine* and *Fringilline* finches, meeting with considerable success in breeding Parrot Finches and various *Poephila*. He also attempted to breed several species of the rarer (possibly, I should say the more retiring) British birds, coming very near to success with Nuthatches and Tree Creepers. He was equally interested in Cavies and Dogs, and will be missed in many directions. To Mrs. Temple we offer deep and sincere sympathy in her bereavement.

Mr. Horne was less known to us, as he took no public part in F.B.C., and was only a very occasional contributor to the club Journal. He was a keen nature student, not merely a keeper of foreign birds, but a lover of all wild life. His demise was the termination of a long, weary, and painful illness. To his bereaved family we offer our profound sympathy.

Also Lieut. H. R. Young, Mitcham Lane, Streatham, S.W. To his bereaved family we offer sincere sympathy.

MAJ. A. E. SNAPE, *Hon. Business Secretary*
WESLEY T. PAGE, *Hon. Editor.*

◆

Proposed for Election as Member.

Mrs K. E. Hollas, Arta, Stewart Road, Preston. By the Hon. Bus. Secretary.

◆

Transfer of Membership.

From Lieut. H. R. Young (deceased) Mitcham Lane, Streatham, to Chas R. Young, 76, Mitcham Lane, Streatham, London, S.W., 16.

The Bird Market.

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FOR SALE: One pair and two odd hen Cockateels, 1921 hatched, splendid condition and full adult plumage. Also specially selected 1922 Khaki-Campbell Drakes, Leslie Thompson—Mrs. Campbell strain, true to colour and type.—Lt.-Col. H. L. de Legh, Shinecliffe, Durham.

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The Foreign Bird Club.

Notices to Members.

Election of Council: According to our rules Messrs. W. Bamford and H. E. Bright retire from the Council at the end of the year, but are eligible for re-election.

There is also a vacancy caused by the decease of W. R. Temple; for this Lt.-Col. H. Legh de Legh is nominated by Capt. W. A. Bainbridge and W. T. Page.

Any further nominations for the above vacancy must reach the Hon. Sec not later than December 15th.

Unpaid Subscriptions: There are still some 12 or 13 members who are still in arrears; at least two applications for same have been made by post—our income still falls short of meeting the full cost of Bird Notes, Medals, and other incidental charges—those still in arrears are requested to forward same forthwith to the Hon. Sec.

New Member: The closing of one year, and the opening up of another is the best period for an effort to secure new members, and your officers earnestly urge each individual member to make an effort to secure at least one new member—we need an increased membership, and this is a matter in which all must co-operate if there is to be any substantial gain.

MAJ. A. E. SNAPE, *Hon. Business Secretary.*

WESLEY T. PAGE, *Hon. Editor.*

◆

Deficit and Illustration Funds.

These two funds need all the help members can give them. The smallest donation will be thankfully acknowledged, both by the Hon. Sec. and in this Journal.

◆

New Member Elected.

Mrs. K. E. Hollas, Arta, Stewart Road, Preston.

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Notices to Members.

By the time this issue is in the hands of Members, 1923 will be fully a week old. We regret this late appearance, but owing to the Xmas holidays, compilation of indices, etc., the delay has been *unavoidable.*

All subscriptions become due on January 1st. Members are requested to remit (20s.) same to Major A. E. Snape, 41, John Dalton Street, Manchester, forthwith.

Costs of production still rule high, and we trust members will support the Illustration and Deficit Funds to the best of their ability.

Every member is urged to make an effort to introduce at least one new member during the year, and also to support the Honorary Editor with copy, such being urgently needed to facilitate the regular and prompt issue of the Club Journal Bird Notes at the appointed date.

MAJ. A. E. SNAPE, *Hon. Business Secretary*
WESLEY T. PAGE, *Hon. Editor.*

Proposed for Election as Member.

Mons. C. Cordier, Werdgutg, 7, Zurich, Switzerland.—By Capt. G. E. Rattigan.

Changes and Corrections of Address.

Chas. R. Young, c/o Eastern Telegraph Co. Ltd., 2, Rue Street, Cannot, Marseilles. France.

◆

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Series III. JANUARY, 1922. Vol. V. No. 1

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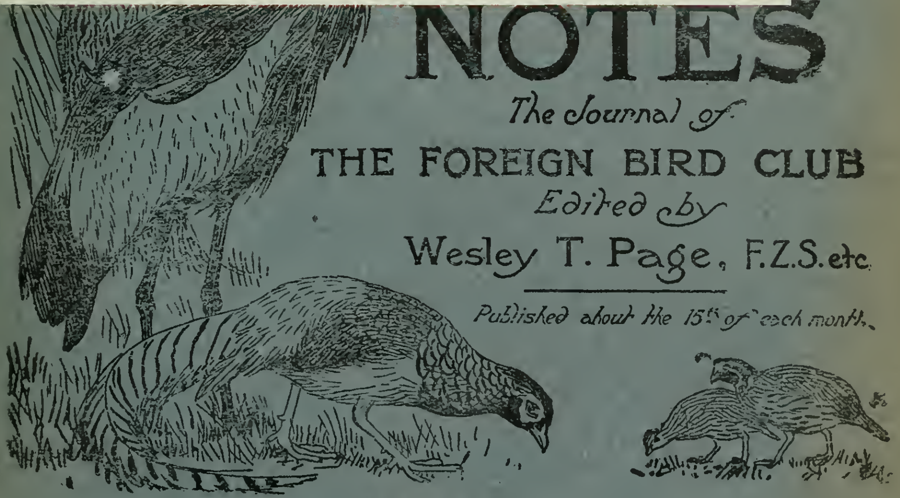

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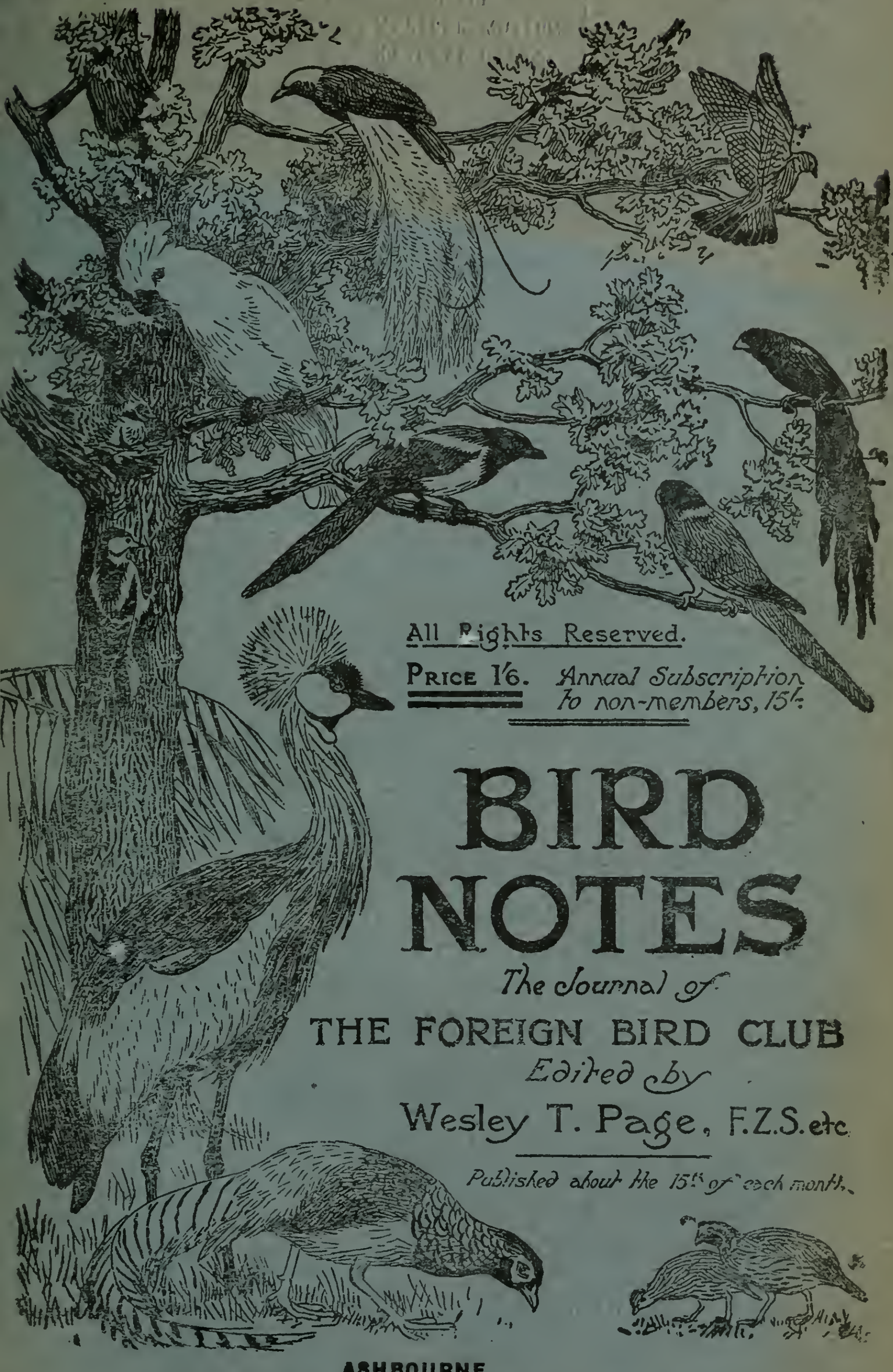

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Editorial.

Post Mortem Reports.

Rules of the Foreign Bird Club.

Roll of Members.

Inset.

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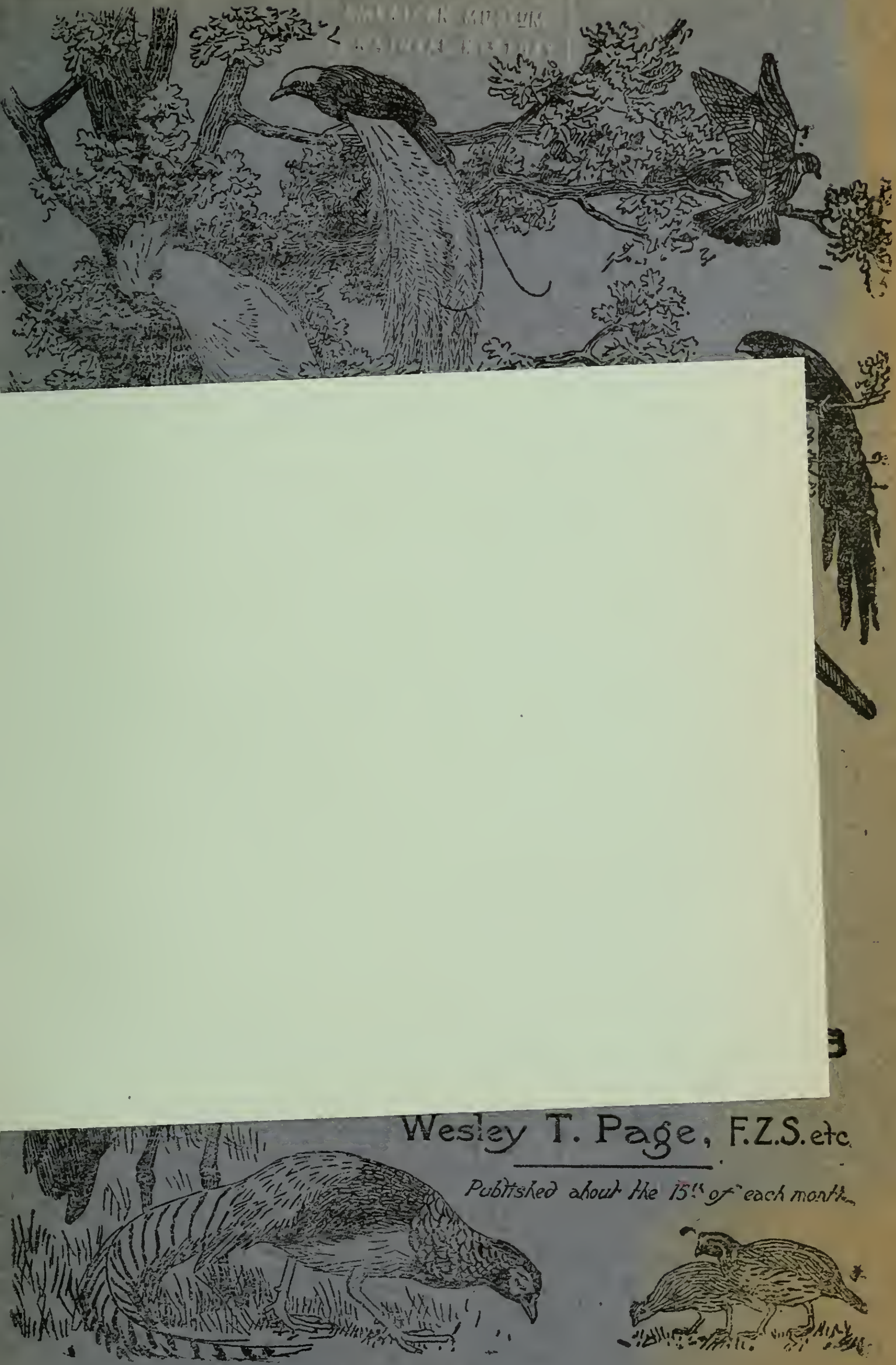

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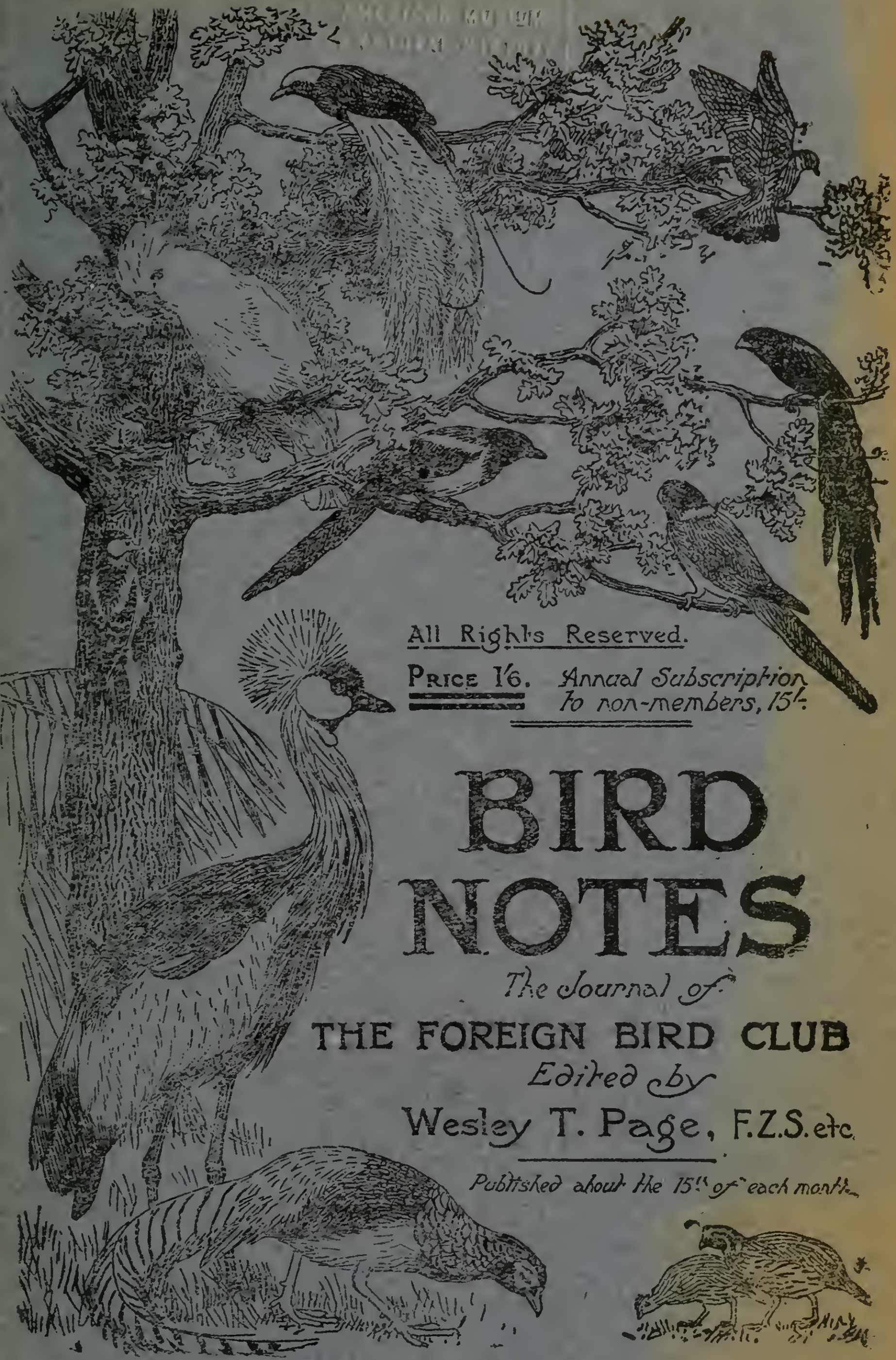

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Early Stray Notes .... By W. Shore Baily.

Budgerigars "French Moult," and Continental Methods of Breeding .... By W. T. Page, F.Z.S., etc.

Breeding Results for 1921 ...... By Capt. G. E. Rattigan, F.Z.S.

The Great Tinamou .... By W. Shore Baily.

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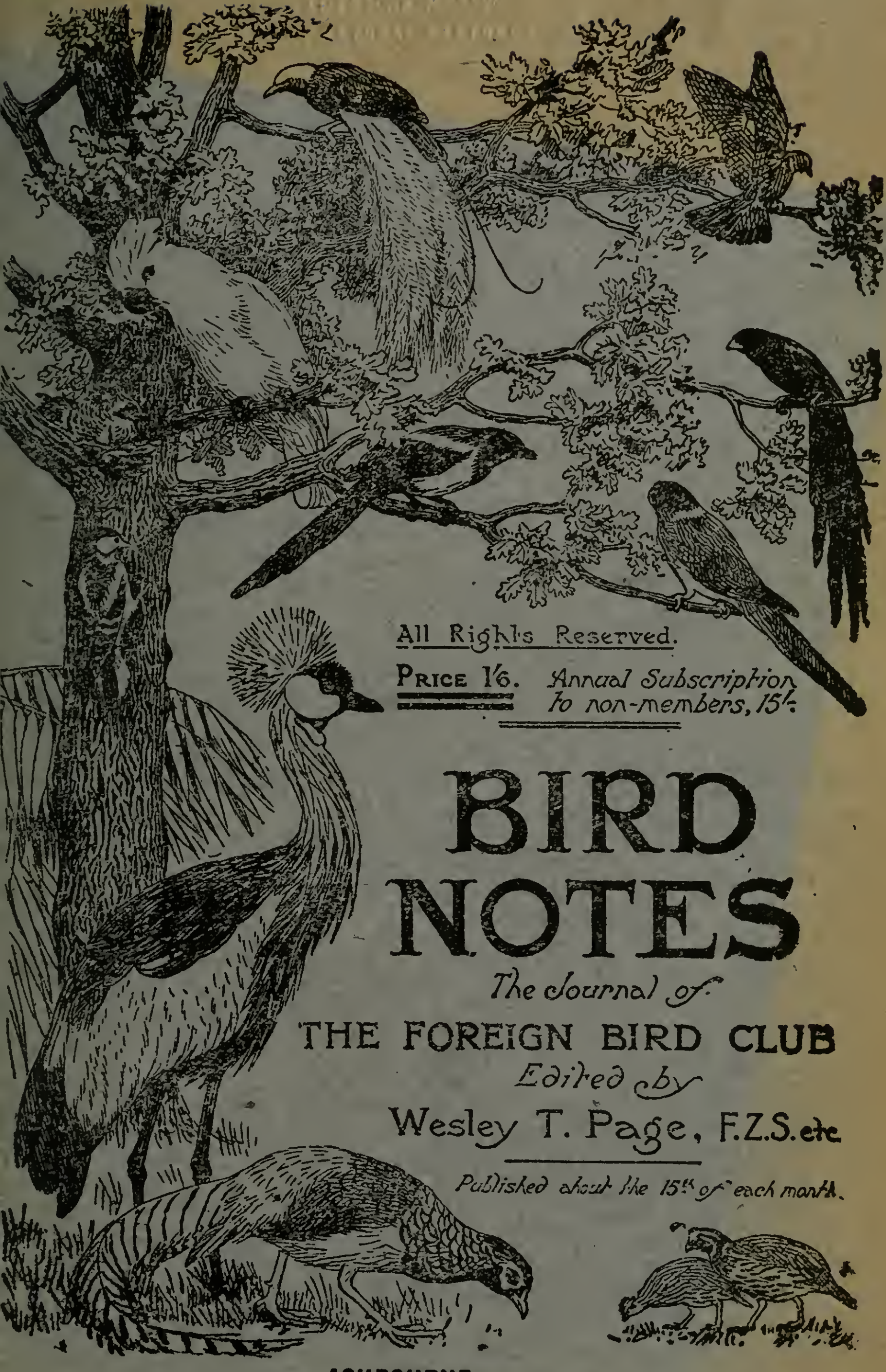

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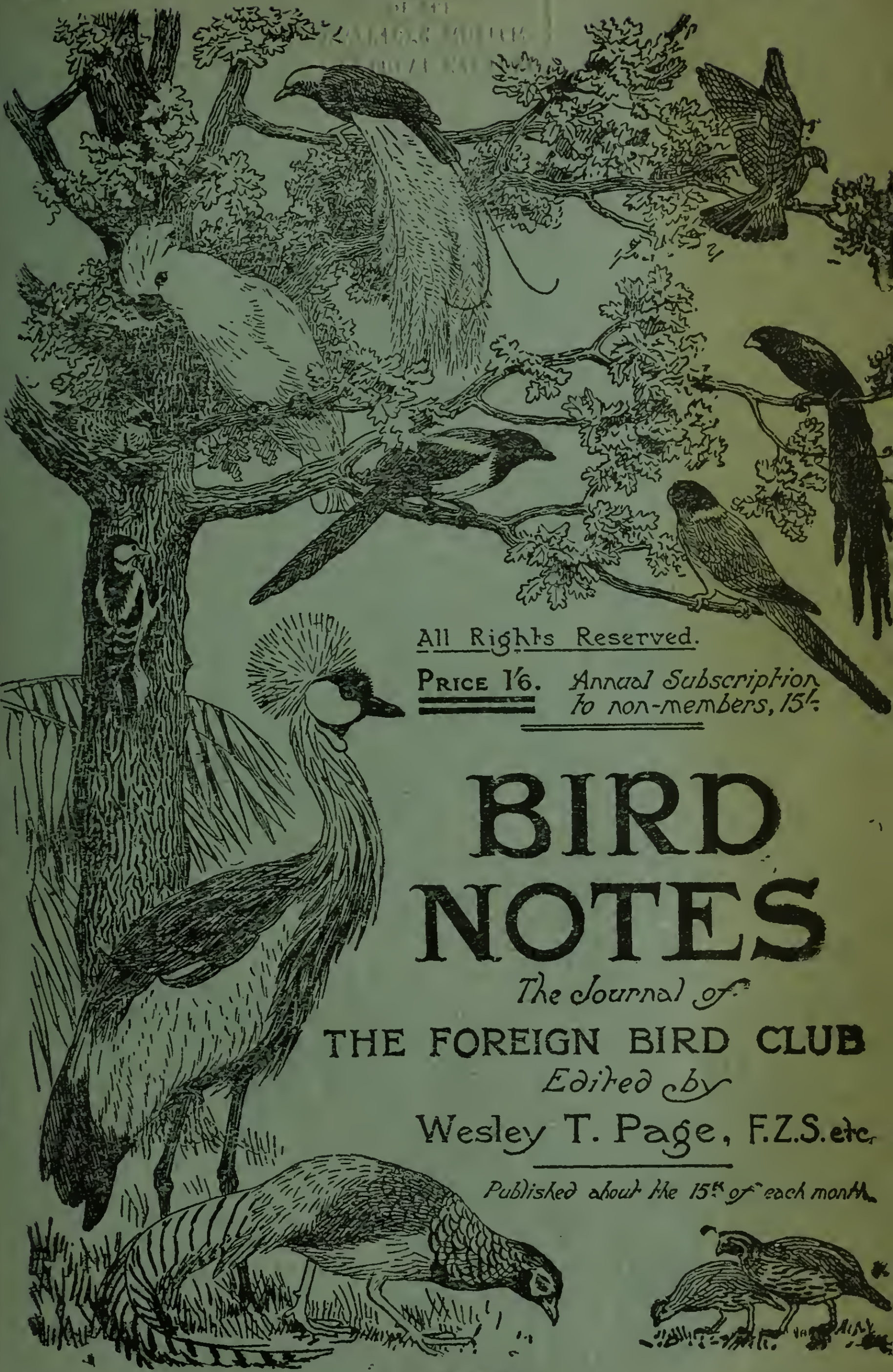

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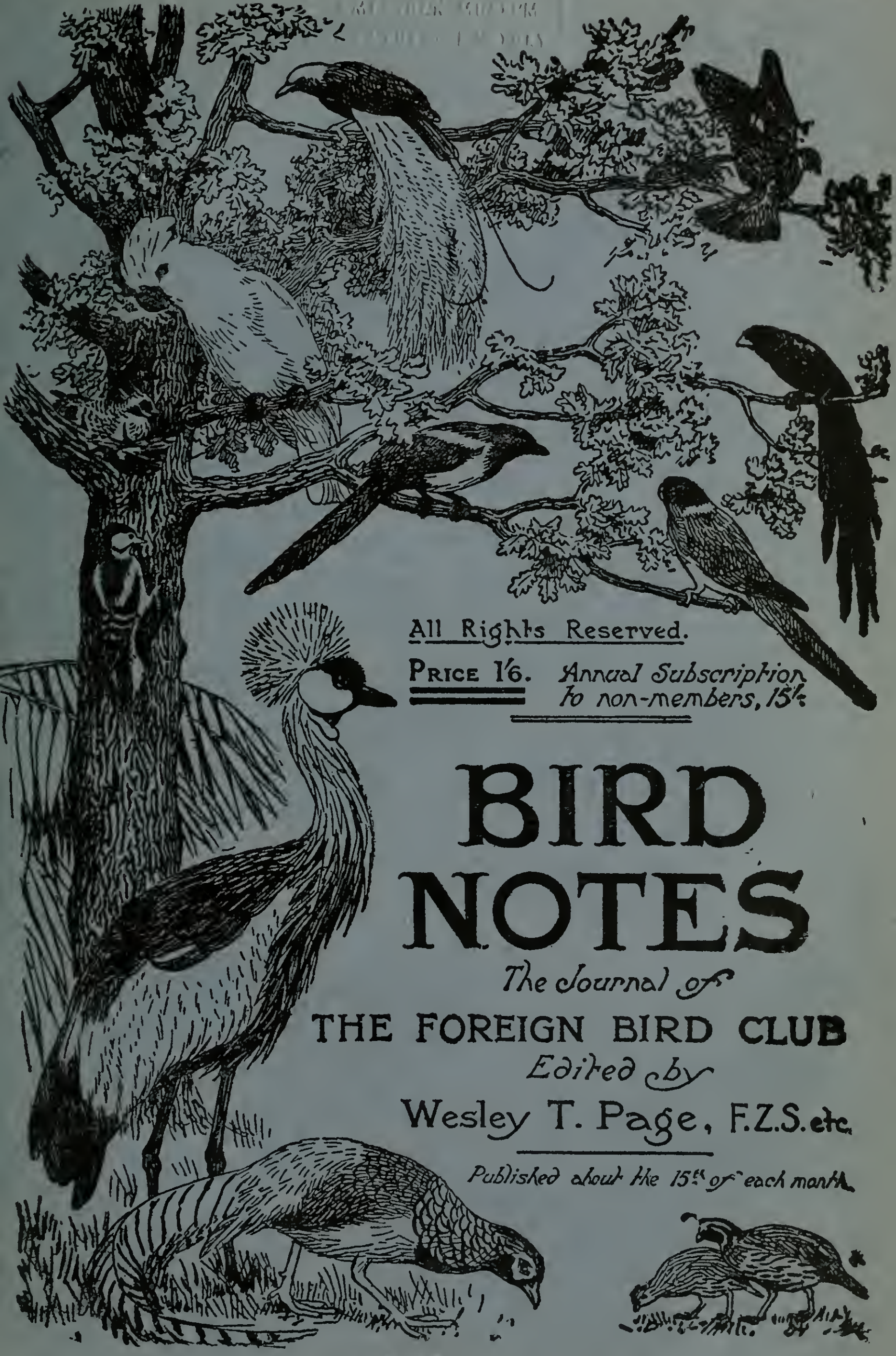

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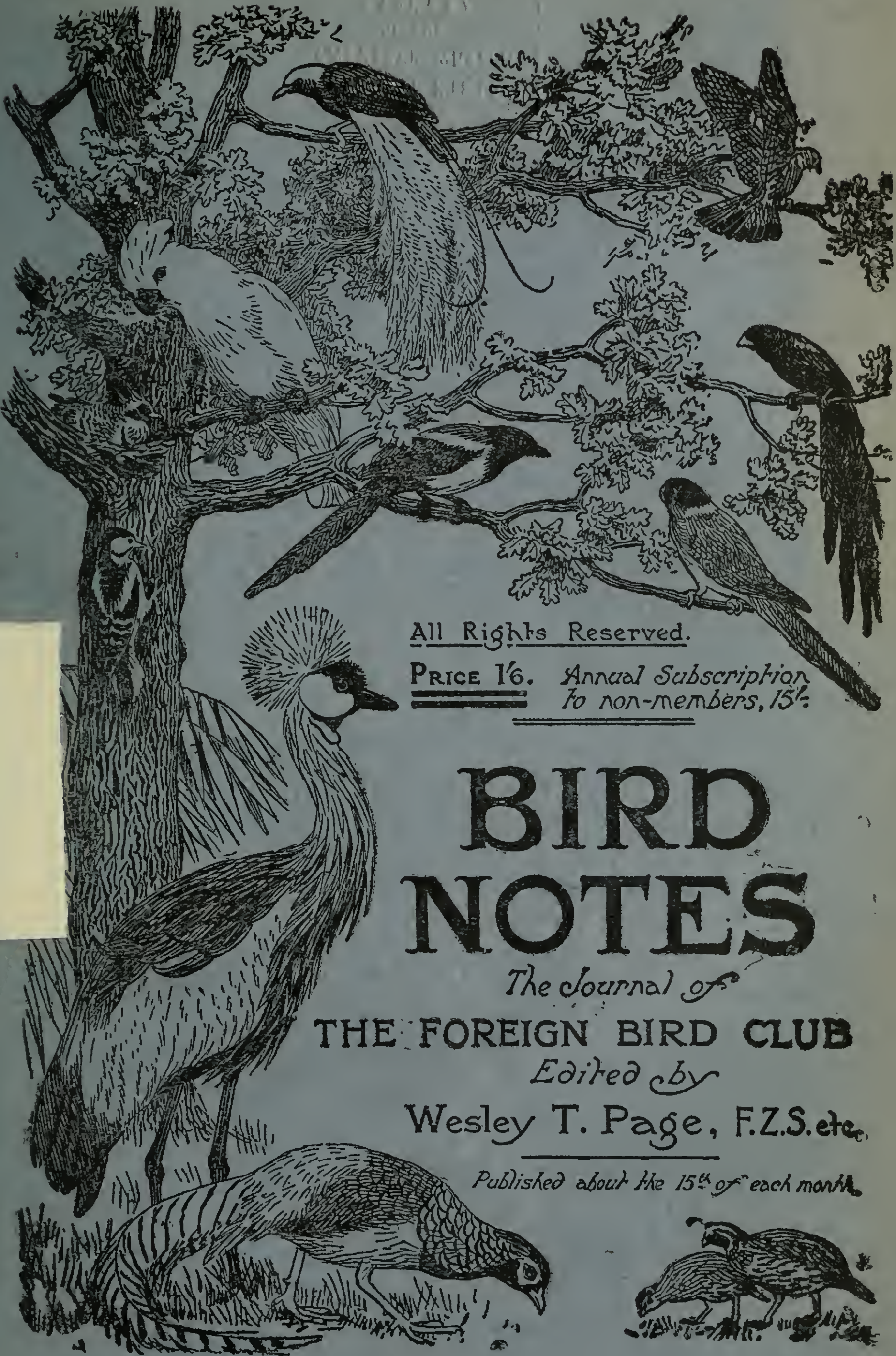

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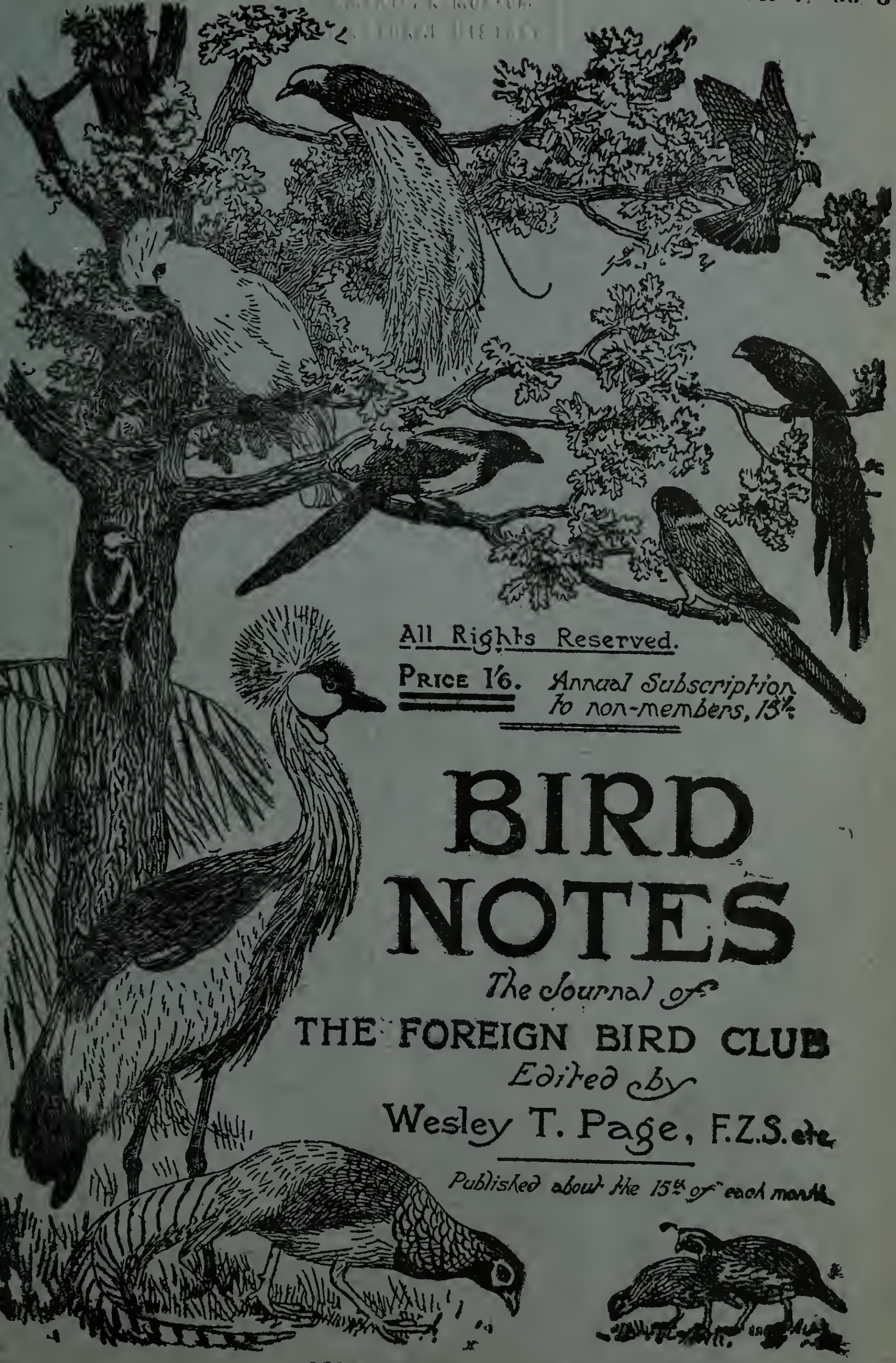

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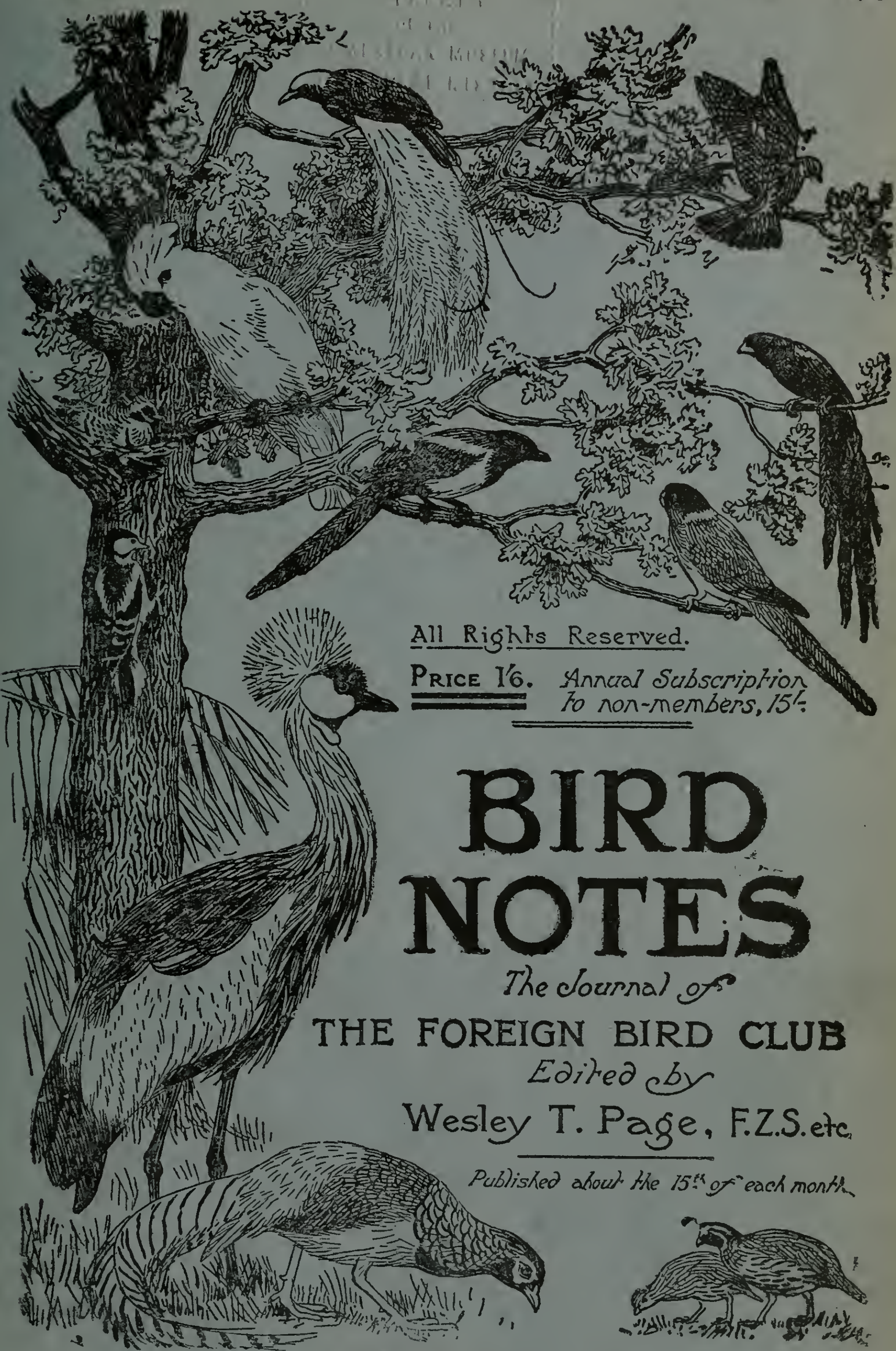

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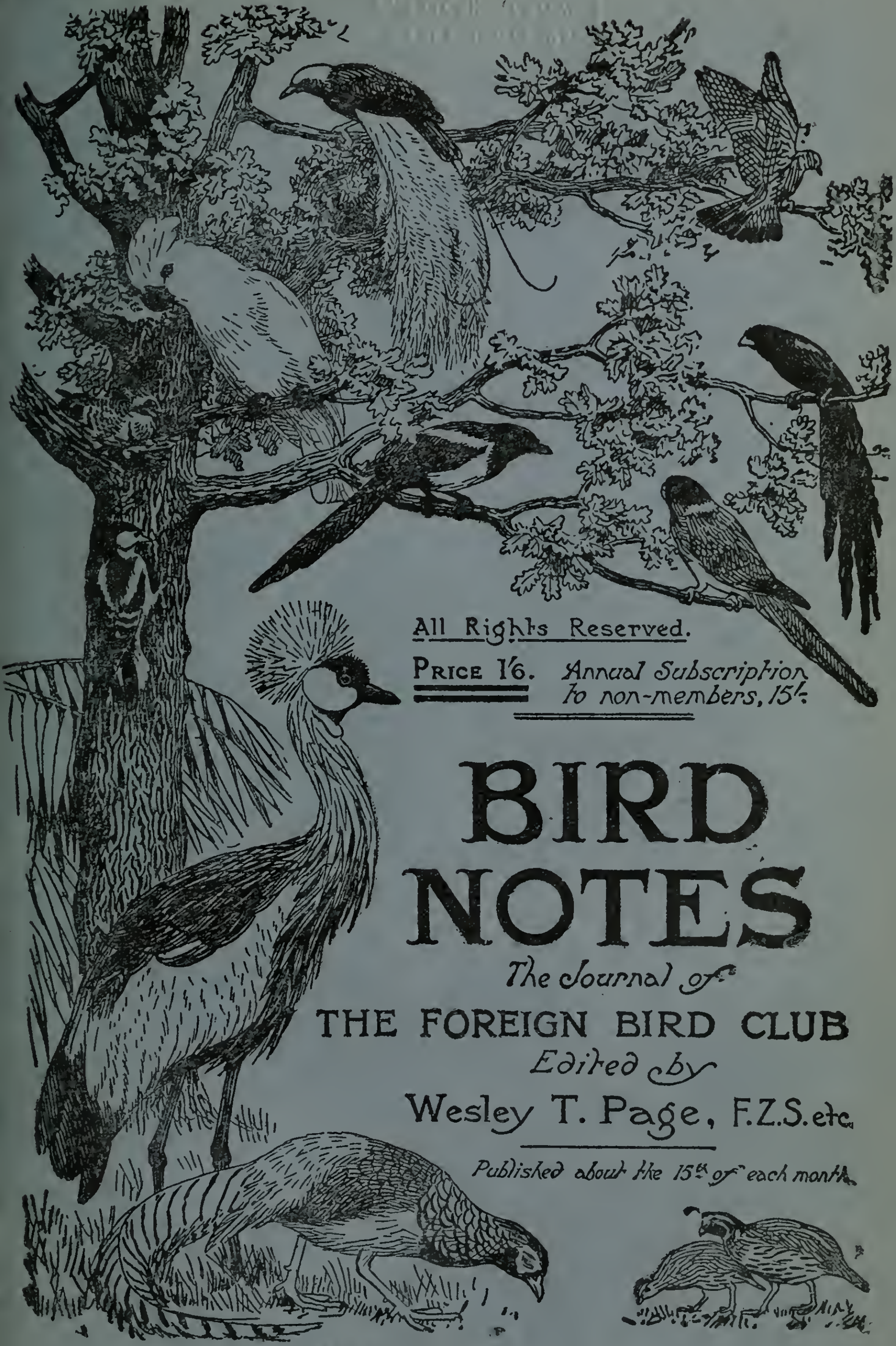

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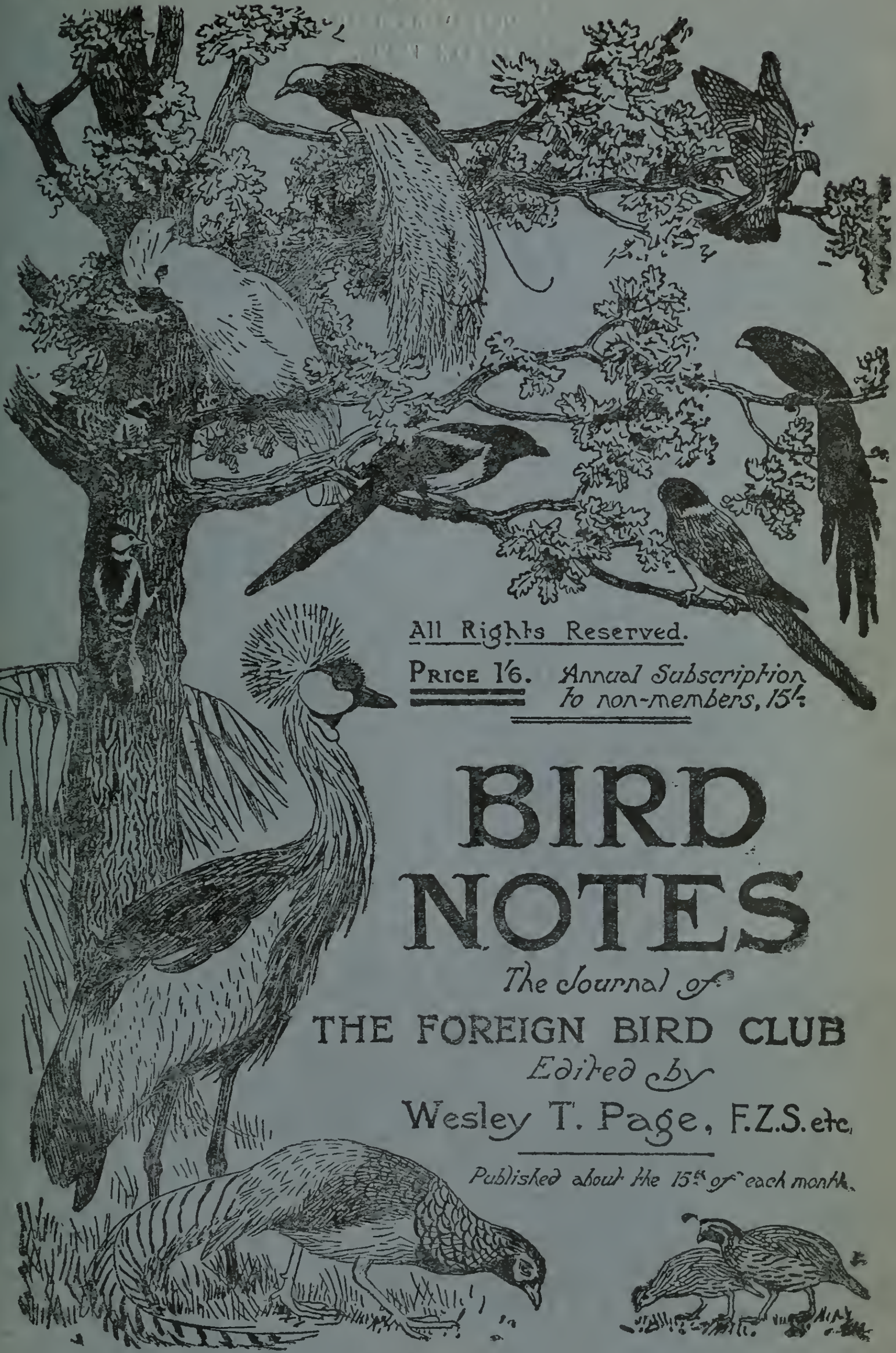

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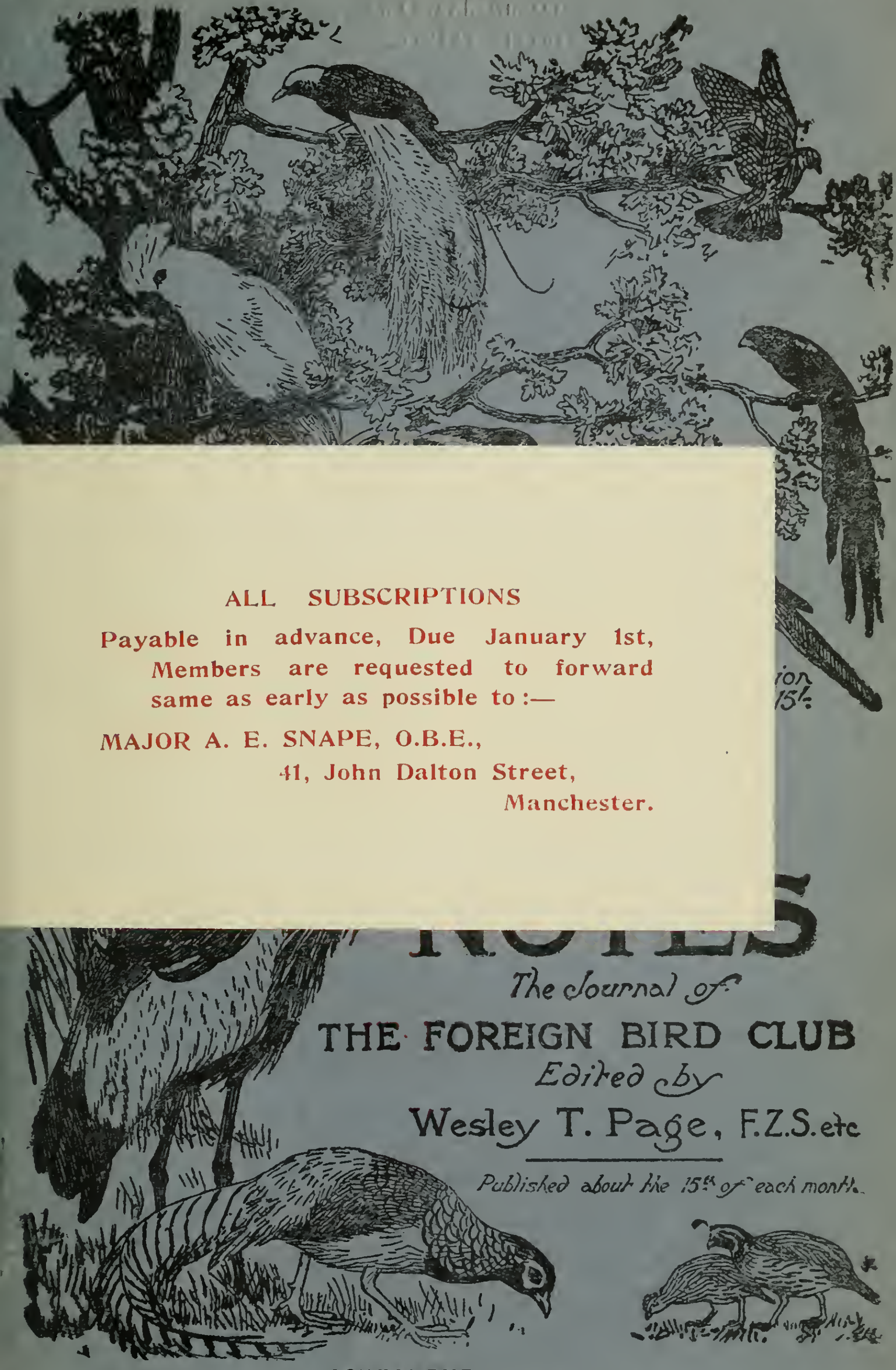

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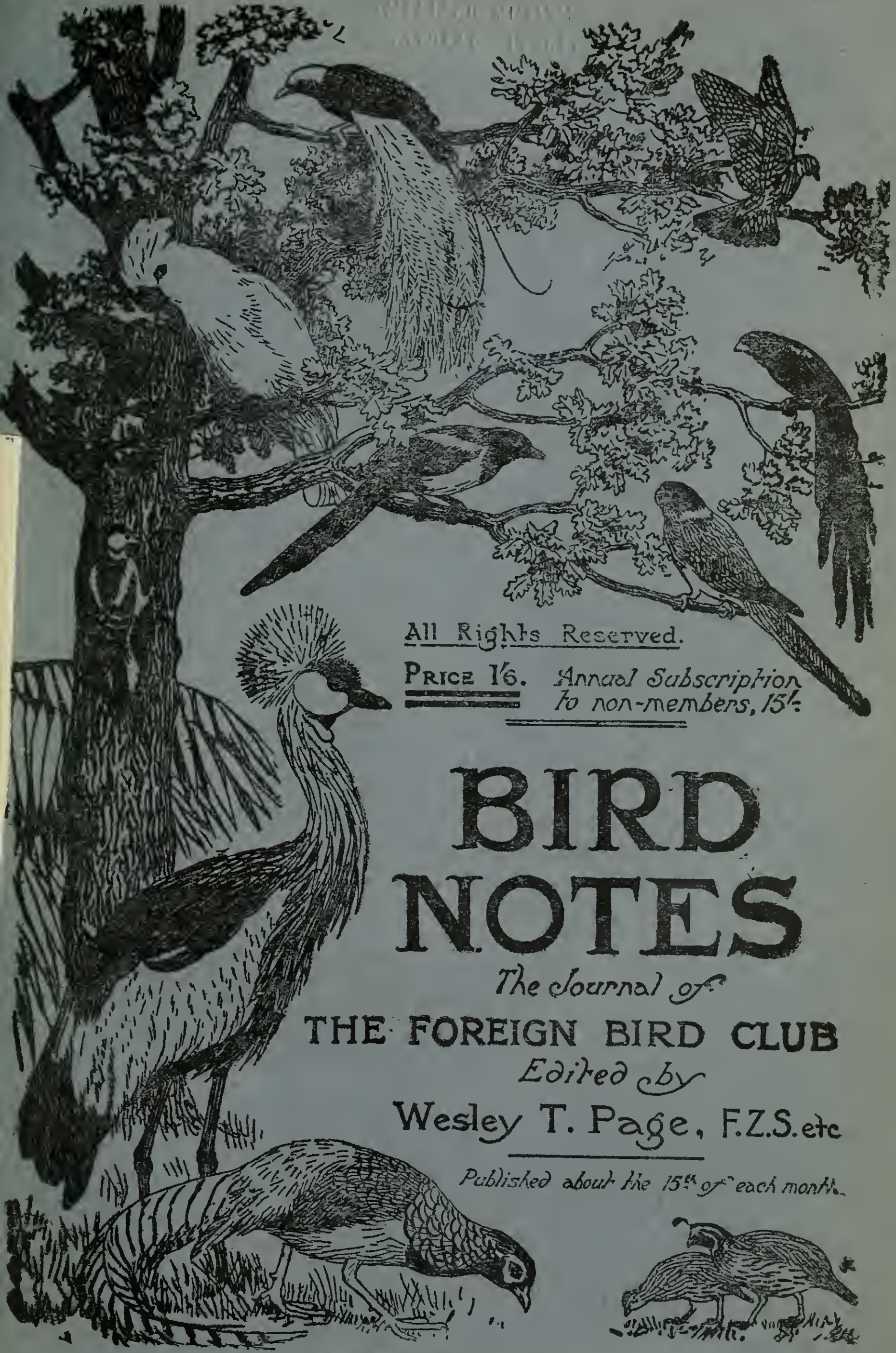

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